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State Employee Salary and Benefit Survey 1978

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STATE EMPLOYEE SALARY
AND
BENEFIT SURVEY
1978

by Department of Administration
Personnel Division

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and
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STATE OF MONTANA
DEPARTMENT OF ADMINISTRATION

DIRECTOR'S OFFICE
MITCHELL BUILDING
HELENA, MONTANA 59601

MAS L. JUDGE Governor

December 15, 1978

The Honorable Thomas L. Judge
Governor of Montana
State Capitol
Helena, Montana 59601

Dear Governor Judge:

It is with pleasure that we present you with this 1978 Montana Salary and Benefit Survey conducted by the Personnel Division. This report was prepared in compliance with Title 59, Chapter 9, R.C.M. 1947, which provides that the department shall continually maintain the State Classification Plan. A critical element in the maintenance of the plan is to assure that State employees are compensated fairly and equitably for their services.

The attached report explains the methodology, findings and recommendations of the department for modifying the classified employees' compensation plan. We believe the information included in this report will help answer many questions relative to employee compensation and benefits.

We wish to express our thanks for the cooperation and assistance received from the many employers who provided the information that made this study possible.

Sincerely,

David M. Lewis, Director
Department of Administration

William S. Gosnell, Administrator
Personnel Division

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ABSTRACT

The purpose of the 1978 salary survey was to determine how the salaries and benefits paid to State employees compare with the salaries and benefits paid by other Montana based employers and to the salaries and benefits paid by surrounding state governments.

The primary focus of the salary survey was to test the competitiveness of grade levels rather than of specific classes. Data were solicited from other employers for representative classes within a grade level so that our findings would relate to all classes within a grade. The survey concentrated on grades 4 through 20. The survey was divided into an in-state survey of Montana based employers and an out-of-state survey of surrounding state governments to reflect different labor markets.

Four other independently conducted surveys were examined to see what issues they might identify and to confirm the findings of our survey. The surveys reviewed were: the 1978 U.S. Civil Service Commission Salary Survey; the State of Wyoming Salary Survey; the Salary Survey of State Governments conducted by Hay Associates, and a study of State Employee Benefits conducted by the Assembly of Government Employees.

Some 35 classes for the in-state survey and 45 classes for the out-of-state survey were selected as key classes to represent the grades within the state pay plan, according to established criteria. For the in-state survey, approximately 500 Montana based employers were sampled and sent a mail questionnaire. The out-of-state survey was conducted among fifteen states in the west and mid-west.

SUMMARY OF FINDINGS, CONCLUSIONS, RECOMMENDATIONS

IN-STATE SURVEY GRADES 4-13

I. Findings:

The entry level salaries, the maximum salaries, and the salaries at mid-point within the State Pay Matrix all appear, with some exceptions, to be in the competitive range with other Montana based employers. However, the average of actual salaries and the total compensation paid to state pay grades are both generally below that paid to equivalent work levels in other sectors of the Montana economy. The state has more steps within a pay grade than is common with other Montana employers. The state grants step increases automatically while other Montana employers commonly grant salary increases based on merit.

Conclusions:

It appears that the State Pay Plan is presently adequate to attract qualified employees into the state service. The state also competes fairly with other employers in Montana as most entry level salaries approximate the rate paid by other employers. The exceptions are at grades 7 and 8 where the state pays above the average and at grade 11 where the state pays less. The problem appears to be that once an employee is hired into the state service the salary increases are not as large as might be expected with another employer. This may be a contributing factor to the turnover problem in state government. In addition, the state has no provision in its pay program to reward employees for merit.

Recommendations:

1. The state should provide normal inflationary increases to the pay matrix at Step 1 in order to remain competitive with other employers. Other employers can be expected to raise their hiring rates to keep pace with the competition and inflation. It will be necessary for the state to do the same.
2. The state should consider granting a separate differential increase to each grade in order to maintain comparability at work levels with the private sector. If uniform across-the-board increases are continued, our current pay plan problems will probably get worse.
3. The state should implement one of the following options:
 - a) reduce the number of steps within a salary grade. We believe that the dollars in the salary range should not be decreased, only the number of steps, or;
 - b) allow agencies to grant more than one step a year to eligible employees based on some merit criteria.

II. Findings:

The state leave policies appear to be liberal in comparison to other Montana employers.

Conclusions:

The state does not need to increase the amount of leave granted to employees in order to be competitive.

Recommendations:

The leave policies may need to be clarified, but no increase in the amount of leave granted to state employees is necessary at this time.

III. Findings:

The state contribution for employee health insurance is below the average for other Montana based employers.

Conclusions:

Even though the state has increased the contribution for health insurance to \$30 a month, it is still below the average provided by other Montana employers.

Recommendations:

The state should increase the state contribution to health insurance.

IV. Findings:

The state contribution for retirement is above the average for other Montana employers.

Conclusions:

Our survey indicates that almost 30% of the Montana based employers do not contribute to employee retirement programs. This fact creates an obvious statistical bias and decreases the statewide average.

Recommendations:

None: The State appears to be competitive to other Montana based employers in the area of retirement contributions.

OUT-OF-STATE SURVEY
Grades 11-20

I. Findings:

Montana entry level salaries, with the exceptions of grades 15 and 16, appear to be competitive with other states.

The maximum and midpoint salaries are slightly lower in Montana than other states. The state has more steps within a grade than other states. The average of actual salaries and the total compensation for Montana are substantially lower than the other states.

Conclusion:

It appears that the state pay plan with some exceptions is adequate to attract qualified employees. However, the survey shows that the state does not provide salary increases large enough to provide an incentive for employees to remain with government. State employee salary increases fall short of what might be expected with another employer.

Recommendations:

1. The state should provide normal inflationary increases to entry level salaries in order to remain competitive with other employers.
2. A separate differential increase should be granted to each grade to maintain comparability with other employers.
3. The state should implement one of the following options:
 - a) reduce the steps in a salary grade, or
 - b) allow agencies to grant more than one step a year based on some merit criteria.

II. Findings:

The state leave policies are competitive with other states.

Conclusions:

The state does not need to increase its general leave policies in order to be competitive with other states. One leave area that should be formalized is educational leave. Presently the practice exists in Montana, but the policy is inconsistent between agencies.

Recommendations:

No action needs to be taken with the possible exception of clarifying the policy on granting educational leave.

III. Findings:

Montana is lower than the average of other states in the areas of health insurance contributions and retirement contributions.

Conclusions:

Montana is approximately 50% below the average of the other states in insurance contributions, and below the average in retirement contributions. This may reduce our ability to compete with other employers.

Recommendations:

The insurance and retirement contributions should be increased.

GENERAL RECOMMENDATIONS

I. Finding:

The State does not reward employees based on work performance. Employees are automatically advanced in step each year without regard to merit.

Conclusions:

The State has a choice between continuing the present system of automatically advancing all employees in salary each year and granting pay increases based on merit. Adopting a merit policy would increase the value of the money spent for salaries by creating an incentive for improving employee performance.

Recommendations:

The State should create a program for employees in occupations that allow individual initiative to receive step increases based on merit. This program should replace the automatic step increases granted to all employees. The merit increases should reward performance rather than length of service with the State. The program should cover employees in the proposed professional and managerial pay plans.

The merit program perhaps should not be applied to employees in the blue collar plan, teacher salary plan(s), and retail clerk pay plan. Many of the employees in these occupations are represented by unions. It is doubtful that a merit increase program can be implemented for these employees without collective bargaining over the policy and procedures governing the pay program.

The State should adopt a budget technique that would limit the number of employees eligible for a merit increase. With no budget limitations there will be considerable pressure on managers to grant nearly every employee a merit increase.

II. Finding:

The classification plan has been improperly used as a salary system. In part, this is reflected by the reclassification requests received by the Personnel Division. Agencies appear to be attempting to promote certain employees as a way to reward them for good performance in their current job.

Conclusions:

The inadequacy of the current pay program which does not allow employees to be paid on merit encourages this practice. If upgrades based on merit considerations are allowed the similar pay for similar work relationship in the classification and pay program could be destroyed.

Recommendations:

Adopt a merit program to give agencies a preferred method of rewarding employees.

III. Finding:

The State has a need to design a flexible pay program that will meet the expectations of diverse groups. One pay plan is inadequate to meet the different requirements of blue collar, clerical, technical, professional and/or managerial employees.

Conclusions:

The demands of collective bargaining and the fact that certain occupations are traditionally paid differently than allowed under the uniform state pay plan, creates the need for separate pay schedules.

Recommendations:

In addition to the separate pay schedules already created, the State should authorize separate pay plans for professionals and supervisory/management personnel.

IV. Recommendation for Legislative Salary Policy Statement:

The legislature should express a clear policy for compensating employees. A compensation policy clearly stated is important as a guide to the executive branch when it administers the actual expenditure of funds for salaries. A compensation policy is not totally arrived at in a voluntary manner as available revenues and the need to hire and keep qualified employees are realities that cannot be ignored. However, without a compensation policy, clearly stated by the legislature, confusion and inconsistent decisions will inevitably occur. The following is a recommended policy statement to be incorporated into the pay act:

"The salary and benefits paid by the State to employees are for the purpose of attracting and retaining competent and qualified employees to perform the services the state is required to provide to its citizens. The state will endeavor to pay salaries and benefits on the basis of internal equity and competitiveness to external labor markets when fiscally able."

INTRODUCTION

This report summarizes data collected in a salary and benefit survey conducted by the State Personnel Division in May of 1978.

The purpose of the salary survey was to determine how the salaries and benefits paid to State of Montana employees compare with the salary and benefits paid by local governments, and private business in Montana, and to the salaries paid to employees of surrounding State governments. The survey was designed to measure the labor market rates for jobs at various levels in the State Classification plan and to compare the State pay policies against the rates found in the various labor markets, to see if the State pay plan is adequate to attract and retain a qualified work force.

Periodic surveys should be conducted because the State of Montana competes for employees in the labor market and must approximate, if not meet, the wages offered by private industry and other public employers, in order to maintain a qualified work force. The payment of wages that are below the market rates may create dissatisfaction and turnover, which can be costly as the state loses its investment in trained employees leaving for other employment. However, should the State pay more than other employers in the private sector, then the public has reason to be concerned over the use of the tax dollar. Both of these situations can be problems.

LEGAL AUTHORITY AND HISTORY OF THE PAY PLAN

When the first enabling legislation for the classification plan was passed in the 1973 session the legislature also directed the Department of Administration to develop a wage and salary plan (Section 6, Chapter 440, Laws of 1973).

"The Department shall develop a wage and salary plan for presentation to the 1975 legislature. The wage and salary plan shall be integrated with the personnel classification plan to insure that positions within classes are paid at similar rates of pay after considering different rates of pay that may result from merit increases and years of State service."

In Section 7 of Chapter 440, Laws of 1973, the legislature gave specific instructions to the Department of Administration when developing the wage salary plan.

"In developing the wage and salary plan the Department shall consider all factors, including the results of meetings with employees and employee organizations that are necessary to insure that the plan will continuously enable the State service to attract and retain an adequate number of professional, technical and administrative personnel." (emphasis supplied)

In 1975 the legislature was presented with a wage and salary plan and later approved a plan by passing HJR-37 with the following characteristics.

- 1) A twenty-five grade plan with thirteen steps in each grade.
- 2) An additional longevity increment was allowed for each five years of uninterrupted state service.

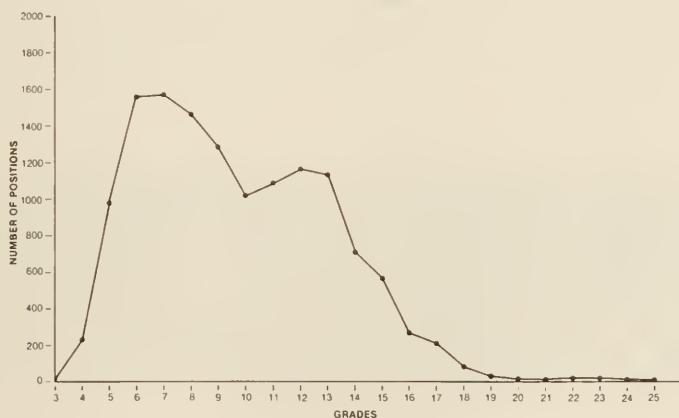
The 1977 legislature adopted a wage salary plan with the same characteristics as the first plan when it amended Section 59-915 through 922, RCM 1947. The pay plan was increased for Fiscal Year 1978 by adding \$416 in step 1 and the following 12 steps were created by adding 2.35% to the previous step. In Fiscal Year 1979 the approach was similar, as step 1 in each grade was increased by \$458 and the following 12 steps were again created by adding 2.35% to the previous step. Employees were provided \$20 a month for health insurance in Fiscal Year 1978 and \$30 a month in Fiscal Year 1979. The use of the flat dollar amounts to increase the salary plan creates a situation where the percentage increase varies for each grade. As an example, grade 3, step 1, was increased by 8% for Fiscal Year 1978 and an additional 8.2% for Fiscal Year 1979. In contrast grade 20, step 1, was increased 1.7% in Fiscal Year 1978 and 1.8% in Fiscal Year 1979. A more detailed analysis of the present pay matrix is included in Appendix V of this report.

ASSUMPTIONS AND ISSUES UNDERLYING THE DEVELOPMENT OF THE SALARY SURVEY

The focus of the salary survey was to test the competitiveness of grade levels rather than specific classes within the State pay plan. Data were solicited from other employers for representative classes so that our findings would relate to all classes within a grade. We recognize that the State must compete in several labor markets with a variety of employers for qualified personnel. However, for the purpose of the survey, we identified only two labor markets.

The salary survey was conducted in two parts, reflecting the defined in-state and out-of-state labor markets. The in-state survey covered classes in grades 13 and below and represented clerical, technical and/or entry level professional occupations. It was assumed that the State competes for these occupations mainly in the in-state labor market. The out-of-state survey covered classes in grades 11 through 20 and included 15 selected state governments in the west and mid-west. A significant number of classes in the higher grades are unique to government and Montana must compete with other states for experienced professionals and managers. Classes in grades 11 through 13 were included in the out-of-state survey to obtain some overlap for comparative purposes with the in-state survey.

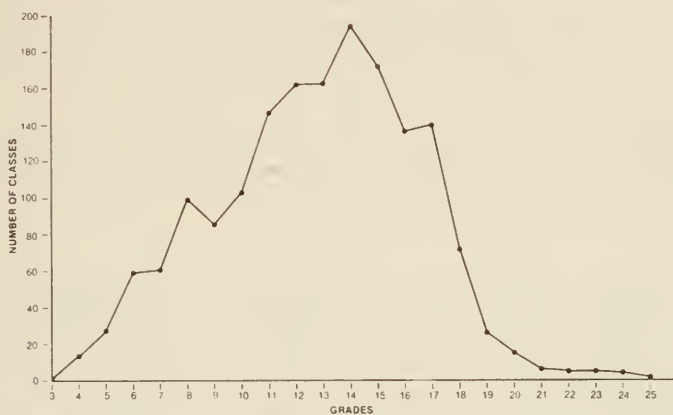
The State pay plan consists of 25 grades. Pay records in 1977 showed that there were no employees being paid in grades 1 and 2, only 16 in grade 3 and 128 employees in grades 19 and above. The remaining 13,300 employees were allocated to grades 4 through 18. The State pay plan, therefore, consists of essentially 15 grades (skill levels). Chart 1 shows the distribution of employees by grade level.



NUMBER OF POSITIONS BY GRADE

CHART 1

The classification methodology has identified approximately 1,700 separate classes. It would have been beyond our limited budget to survey each class. Even if a complete survey could have been afforded, adequate matches for a significant number of classes would not have been attained because many state jobs are unique and no suitable counterpart exists in the labor market. Therefore, it was necessary to select key classes that would be capable of representing a grade level and also be capable of producing an adequate match in the labor market. Chart 2 shows the distribution of classes by grade level. The greatest diversity of work represented by the number of individual classes is at grade 14.



NUMBER OF CLASSES BY GRADE

CHART 2

It is important to recognize that the State classification plan and the State pay plan, although highly interrelated, are not one and the same. A separate legal authority establishes each. The pay plan can be changed without affecting the classification plan. In fact, the Legislature has changed the pay plan each year by increasing the salaries in the pay matrix. The classification plan is administered by the State Personnel Division and is constantly updated as jobs change. The pay plan, however, is controlled by the Legislature. The Legislature decides if the State should pay more than, less than, or about equal to comparable jobs found in the labor market by exercising its appropriation power.

The purpose of the classification plan is to assure that pay relationships are based on job content. That is, jobs that are more difficult, have more responsibility, and require higher qualifications, are paid more in the system. The State Personnel Division uses a uniform methodology and a series of benchmark positions against which jobs are ranked. Positions in the State service are allocated to a class and each class is assigned a pay grade. The goal is to establish internal equity (equal pay for equal work) by assigning jobs with comparable job content the same pay grade, and thereby link the classification plan to the pay plan. A significant and chronic source of controversy will always be how particular jobs should be classified and at what grade. The question of grade has important financial implications for an employee. Equally important, however, is the negative impact on morale and productivity occurring when employees feel that they perform equal work to other employees who are paid more. The internal equity of a pay system (i.e., where employees performing essentially equal work receive similar pay) is perhaps more important for maintaining employee morale than being competitive to the labor market.

The principles of internal equity should apply not only to individual jobs within the defined classes but also among the various classes. As an example, grade 11 is both an occupational work level and a pay grade. College graduates may be recruited at the typical professional entry level of grade 11 and are placed in the same pay grade whether they are economists, accountants, foresters or nurses. Also found in the same pay grade are administrative secretaries, technicians and a variety of other workers. All of these classes have been determined to be performing work at the same level from the standpoint of the difficulty of duties, responsibilities assumed and the qualifications required.

The practice of allocating a diversity of jobs to common pay grades, which are paid in accordance with a uniform schedule, is not unique. The Federal government, most large companies, and other states have systems similar in concept. Most employers try to pay in accordance with the value of services rendered and attempt to apply the concept of equal pay for equal work. This approach is mandated in part by federal and state laws governing sex discrimination. The Federal Equal Pay Act of 1963 prohibits employers from "discriminating on the basis of sex by paying wages less than paid to employees of the opposite sex for equal work that requires the same skill, effort and responsibility and performed under similar working conditions." Typically, other governments and large firms use similar job evaluation techniques to rank jobs and to establish pay relationships. The relative ranking of jobs generally coincides with that found in this state.

The usual way to determine the salary of a work level is to survey the rates paid for a representative number of jobs in the labor market. The rates paid for all of the jobs surveyed at that level are aggregated and interpreted as the labor market rate. The necessity of obtaining a representative cross section of the private sector universe of jobs creates the need for variety in the occupational sample and not the variety of classes in a grade in the state plan. Theory would say a single class within the state plan could be used to represent a work level. As an example, engineering technicians are usually paid higher rates because they are typically employed by large firms. In contrast, clerks

are most often found in the smaller finance, insurance and retail firms and would represent the relatively lower rates paid in those industries. Neither job by itself represents a balanced picture of private sector rates but combined can begin to present a more balanced and representative salary figure for a work level.

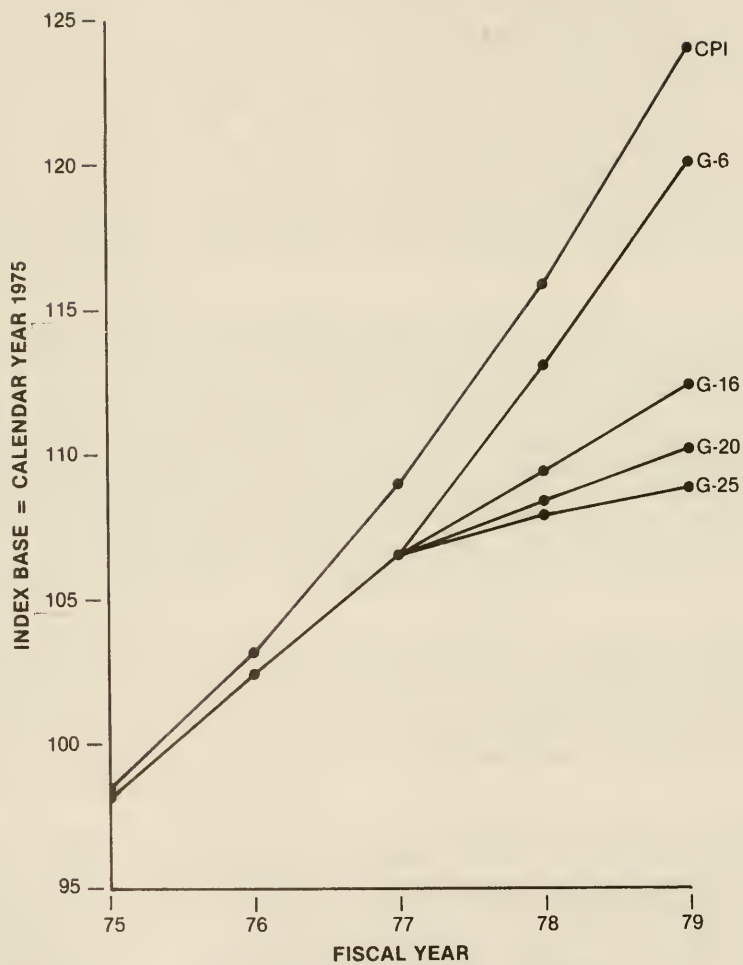
The use of occupational comparability rather than work level may create grounds for charges of illegal sex discrimination. Certain classes are predominately women and are more frequently found in the smaller firms. A survey of a predominately female class would tend to produce relatively lower rates when compared to another class, at an equivalent work level, of mainly male workers, found in the larger industries. If the state classification plan ranked the two classes at the same work level, it would be difficult to justify paying different rates. The state could be charged with perpetuating sex discrimination found in the labor market. The principle of equal pay for equal work should apply to all employees. However, there may be situations where certain occupations, because of a scarcity of qualified applicants, require the payment of a higher rate than would be justified on work level comparisons alone. The State needs to attract and retain some occupations in order to achieve the goals of complex programs. The exceptions should be justified by unique market conditions which may require that the state establish a separate pay program for certain occupations.

Four other independently conducted surveys were examined. The surveys reviewed were the following: The 1978 U.S. Civil Service Commission State Salary Survey; the 1978 Salary Survey of State Governments conducted by Hay Associates; the State of Wyoming Salary Survey; and a Study of State Government Employee Benefits conducted by the Assembly of Government Employees (AGE). Montana had participated in each of these surveys. These surveys are discussed in more detail in the appendix. The salary surveys indicate that State employee salaries in Montana, at the higher grade levels (grade 13 and above) and at the higher step levels, have become less competitive. The Hay Survey, which solicited average salary data rather than salary range data, presents evidence that the actual salaries being paid State of Montana job incumbents in the upper grades are comparatively lower than other states.

The contribution to employee health insurance and retirement plans have been major issues at the collective bargaining table in the past. During the current biennium, the retirement contribution was increased from 5.5 percent to 6.2 percent of salary and the health insurance contribution was increased from \$10 to \$30 per month. Significant gains were allowed but as indicated by the AGE survey, the problems of lower than average employer contributions to retirement and insurance seem to persist.

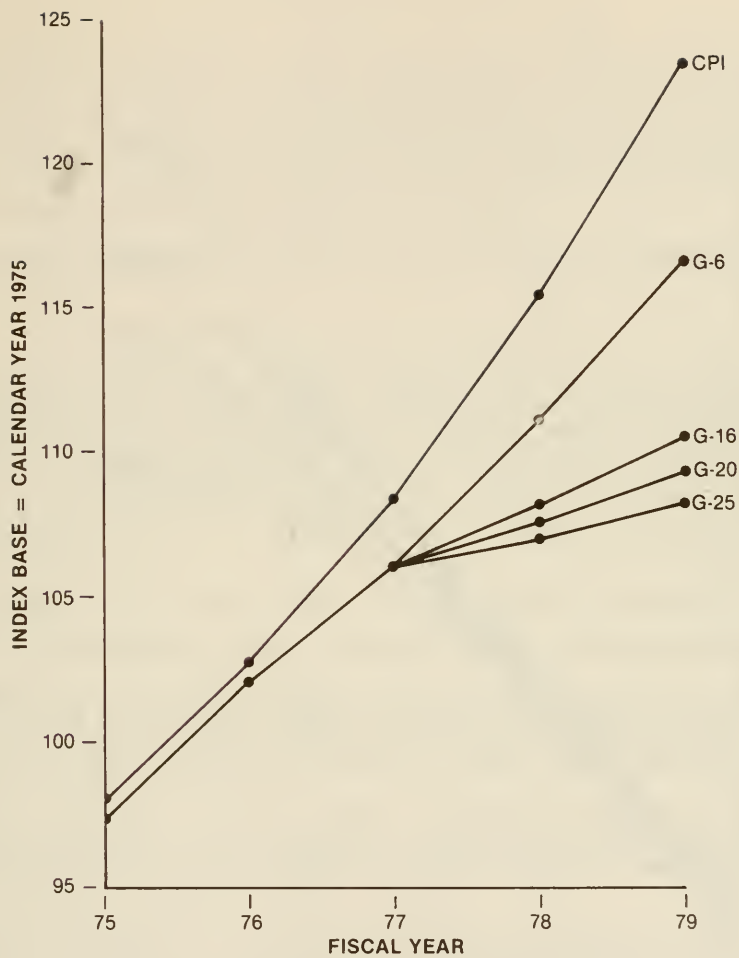
The Consumer Price Index (CPI), which is published by the U.S. Department of Labor, measures the changes in prices of goods and services purchased by urban wage earners. This series is a nationwide index and, as such, may not directly reflect Montana price changes. However, the Consumer Price Index should approximate the general price changes in Montana and is useful as a standard to measure the general impact of inflation on employee income. For comparative purposes, the Consumer Price Index and State salaries at various grade and step levels were converted to indices with the common base being calendar year 1975. Charts 3, 4 and 5 illustrate these comparisons. Chart 3 shows that entry level salary-

ies, which reflect the state's ability to attract qualified job candidates in the upper grades, have been outdistanced by inflation as measured by the CPI. Chart 4 indicates that maximum state salaries, especially those at the upper grade levels, are not rising as fast as the CPI. Chart 5 assumes that a person who is at step 1 of a particular grade level during Fiscal Year 1974-1975 is granted an his automatic annual step increase so that during Fiscal Year 1978-1979 this person is at step 5 of the same grade level. This chart illustrates that upper grade level salaries did not keep pace with nationwide consumer prices. Employees in the upper grades would have to have been promoted in order to have their salaries increased at the same rate as the CPI.



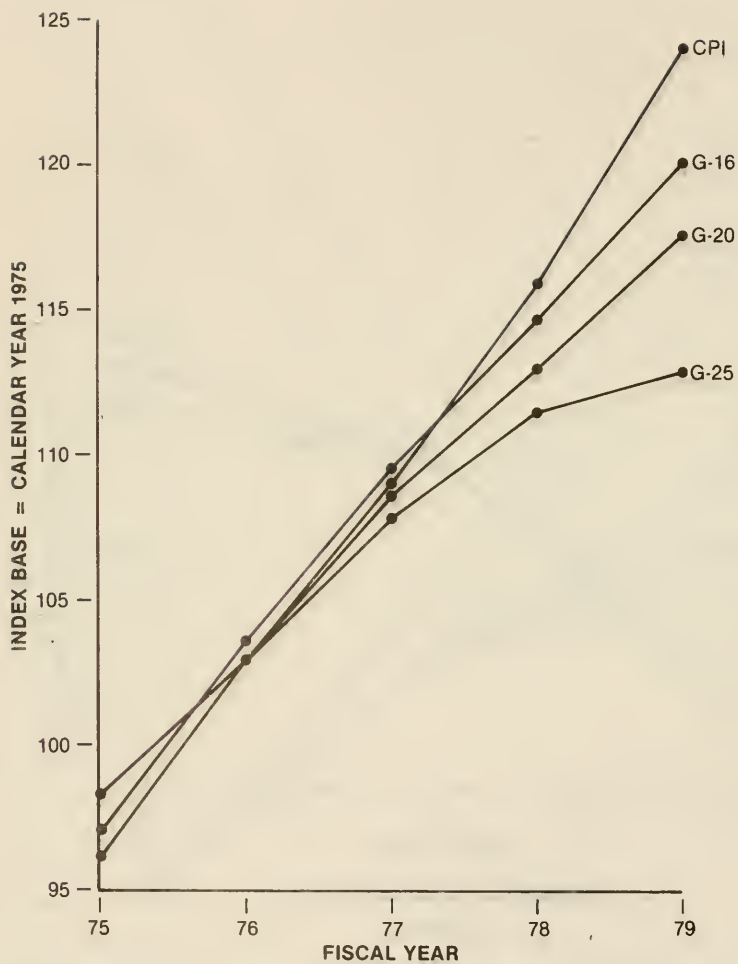
ENTRY LEVEL SALARES (STEP 1)

CHART 3



FROZEN LEVEL (STEP 13)

CHART 4



FISCAL YEAR 74-75—STEP 1/FISCAL YEAR 78-79—STEP 5
CHART 5

SELECTION OF KEY CLASSES

The key classes for both the in-state and out-of-state survey were selected in the same manner. Initially, a list of criteria was established as guidelines for selecting key classes to most appropriately meet the overall survey objectives. Sufficient classes were then selected by carefully considering each of these criteria. Comments were then solicited from experienced job analysts, who are most familiar with the jobs within the State of Montana classification system. Finally, the analysts' comments and the criteria list were both carefully analyzed to select a final list of key classes.

Classes to be surveyed were initially selected according to the following list of criteria:

Criteria for Key Class Selection

1. Classes were selected to adequately represent most grades within the state pay matrix so that statistically reliable conclusions could be drawn. The intent was to represent a grade by utilizing as few key classes as possible. Too many classes may tend to lower the response rate and/or cause hasty responses which could lead to less reliable job matches.
2. Classes were selected to proportionately and adequately represent all state departments.
3. Key classes had to be well-known, commonly understood occupations.
4. Key classes had to be capable of being defined clearly and concisely.
5. Depending upon the labor market (in-state or out-of-state), key classes had to be found in reasonable numbers in the public and/or private sectors. Classes which were successful in obtaining data for our last salary survey and for surveys conducted by others were given greater consideration.
6. Diverse classes were selected within grade levels without giving up representativeness. In the lower grades, however, some similar classes were selected because they represented the grade well and because they increased the chances for receiving usable responses.
7. Whenever distinctions could be made adequately, whole series or parts of series of classes were selected as key classes. This was done for the following reasons:
 - a) It provided smaller participating employers with more information to accurately match their job classes. Respondents from small and large firms were presumed to feel less compelled to erroneously force their few positions to match one key class description. Truer comparisons were expected when it was deemed feasible to include more than one level of an occupational class.
 - b) It demanded less investigative work on the part of the respondents as they would not have to search through as many of their various occupational descriptions.

- c) Because of the strong grade representativeness achieved by including whole or parts of series as key classes, this selection method provided a greater chance to accomplish our overall survey objectives.

Based on the criteria, 35 in-state and 45 out-of-state classes were originally selected to be included in the survey. Experienced Job Analysts within the Classification and Pay Bureau were asked to identify any problems which could be anticipated in using these selected classes. Analyst opinions and the list of criteria were then considered in selecting a final set of key classes. The in-state and out-of-state classes which were selected are listed in Table 1 and Table 2 respectively. Column III of the tables indicates the percent to which a particular class within a grade represents the total employment of that grade. For example, there are 239 employees at grade 4, of which 133 or 55.6 percent are General Office Clerk I's.

Some classes which were not selected as key classes, are very similar to those that were selected in regard to the type of supervision received; to the level of supervision exercised; to the amount of education and experience required, and to the type of actual duties and tasks being performed. To determine similarity, key class specifications were carefully compared to all other non-selected class specifications within their appropriate grade levels. The total grade representations achieved by each key class's employment, plus the employment of similar classes are listed in column IV of Tables 1 and 2.

TABLE 1

IN-STATE SURVEY KEY CLASSES

I Key Classes	II Class Code	III Percent of Grade	IV
			Total Percent Representation
General Office Clerk I	219004	55.6	81.6
Grade 4 Totals		55.6	81.6
General Office Clerk II	219005	24.6	46.4
Kitchen/Bakery Helper II	317002	7.3	7.3
Clerk Stenographer I	202001	3.0	3.0
Grade 5 Totals		34.9	56.7
General Office Clerk III	219006	10.2	41.5
Survey Aide I	018009	9.6	12.0
Clerk Stenographer II	202002	4.4	4.4
Food Service Worker II	311002	4.3	4.3
Grade 6 Totals		28.5	62.2
Custodial Worker III	382003	14.0	23.2
Secretary I	201001	5.7	19.2
General Office Clerk IV	219007	4.1	15.9
Nurse's Aide I	355005	3.5	15.6
Library Clerk II	249006	1.6	1.6
Grade 7 Totals		28.9	75.5
Secretary II	201002	13.8	19.1
Survey Aide II	018010	7.2	7.2
Cook II	315002	3.3	4.5
Computer Operator I	213008	.8	2.0
Draftsman II	017005	.8	.8
Grade 8 Totals		25.9	33.6
Secretary III	201003	14.6	18.5
Accounting Technician I	160003	6.4	12.2
Licensed Practical Nurse I	079001	2.5	7.1
Draftsman III	017006	1.7	1.7
Equipment Operator II	919005	1.0	3.7
Computer Operator II	213009	.9	1.8
Grade 9 Totals		27.1	45.0
Engineering Technician I	018003	10.1	16.7
Licensed Practical Nurse II	079002	8.2	11.6
Administrative Secretary I	201004	6.6	10.6
Police Patrol Officer II	375015	1.9	8.0
Grade 10 Totals		26.8	46.9
Social Worker I	195008	15.9	29.6
Accountant I	160013	1.9	4.2
Computer Programmer I	020025	1.8	3.1
Equipment Mechanic III	620002	1.4	3.0
Grade 11 Totals		21.0	39.9

TABLE 1 (Continued)

I	II	III	IV
<u>Key Class</u>	<u>Class Code</u>	<u>Percent of Grade</u>	<u>Total Percent Representat</u>
Ungraded Room Teacher	094004	4.5	6.0
Social Worker II	195009	3.9	18.4
Professional Nurse I	075001	3.0	4.9
Accountant II	160014	2.6	8.4
Civil Engineer I	005047	1.6	3.3
Grade 12 Totals		15.6	41.0
Engineering Technician III	018005	13.9	15.4
Computer Programmer II	020026	3.2	5.7
Civil Engineer II	005015	2.4	8.2
Professional Nurse II	075002	1.8	6.7
Lawyer I	110001	1.2	1.2
Maintenance Plumber	862006	.9	.9
Grade 13 Totals		23.4	38.1
Professional Nurse III	075003	1.6	10.1
Civil Engineer III	005016	1.1	2.5
Grade 14 Totals		2.7	12.6
Civil Engineer IV	005017	.9	4.9
Grade 15 Totals		.9	4.9
Civil Engineer V	005018	3.8	10.6
Grade 16 Totals		3.8	10.6

TABLE 2
OUT-OF-STATE SURVEY KEY CLASSES

I	II	III	IV
<u>Key Class</u>	<u>Class Code</u>	<u>Percent of Grade</u>	<u>Percent Total Representation</u>
Psychiatric Aide I	355008	8.9	24.8
Grade 7 Totals		8.9	24.8
Psychiatric Aide II	355009	6.8	19.6
Grade 8 Totals		6.8	19.6
Eligibility Technician	195001	11.4	12.1
Grade 9 Totals		11.4	12.1
Employment Interviewer I	166001	5.6	6.7
Grade 10 Totals		5.6	6.7
Social Worker I	195008	15.9	21.4
Employment Interviewer II	166002	8.2	9.9
Accountant I	160013	1.9	4.2
Computer Programmer I	020025	1.8	3.1
Fisheries & Wildlife			
Biologist I	041027	.9	3.2
Fish & Game Warden I	379004	.4	3.6
Grade 11 Totals		29.1	45.4
Employment Interviewer III	166003	9.9	11.5
Social Worker II	195009	3.9	7.9
Professional Nurse I	075001	3.0	4.9
Accountant II	160014	2.6	8.3
Fish & Game Warden II	379005	2.4	17.5
Civil Engineer I	005047	1.6	3.3
Claims Examiner II	241005	1.5	4.2
Grade 12 Totals		24.9	57.6
Engineering Technician III	018005	13.9	15.4
Computer Programmer II	020026	3.2	3.6
Civil Engineer II	005015	2.4	8.2
Professional Nurse II	075002	1.8	6.7
Fisheries & Wildlife			
Biologist II	041028	1.7	2.6
Programmer/Analyst I	012008	1.3	6.6
Lawyer I	110001	1.2	1.2
Grade 13 Totals		25.5	44.3
Fisheries & Wildlife			
Biologist III	041029	7.4	9.6
Employment Manager I	166026	3.3	9.1
Programmer/Analyst II	012009	3.3	7.8
Accountant Supervisor I	160016	2.7	11.7
Professional Nurse III	075003	1.6	10.1
Civil Engineer III	005016	1.1	2.5
Fish & Game Warden Super. I	379008	1.0	5.7
Grade 14 Totals		20.4	56.5

TABLE 2 (Continued)

I	II	III	IV
Key Class	Class Code	Percent of Grade	Total Percent Representati
Educational Program Consult.	099010	5.9	7.0
Lawyer II	110002	3.7	4.2
Psychologist III	045006	2.3	7.1
Accountant Supervisor II	160017	1.9	13.3
Civil Engineer IV	005017	.9	4.9
Employment Manager II	166027	.9	9.9
Portfolio Manager	020031	.2	6.8
Grade 15 Totals		15.8	53.2
Fisheries & Wildlife			
Biologist Supervisor	041031	7.6	9.5
Civil Engineer V	005018	3.8	10.6
Educational Program Manager I	099011	2.9	4.9
Fish & Game Warden Super. II	379009	2.9	6.9
Grade 16 Totals		17.2	31.9
Psychologist V	045007	4.3	15.4
Lawyer III	110003	3.9	3.9
Supervisor Systems & Pro-			
gramming Section	012002	1.4	9.2
Super., Contributions Section	168047	.5	8.7
Grade 17 Totals		10.1	37.2
Supervisor, Division Con-			
struction Section	005007	12.4	14.6
Chief, Insurance Bureau	169120	1.1	5.6
Admin., Community Service Div.	169094	1.1	6.7
Admin., Corporate Tax Division	160069	1.1	12.4
Grade 18 Totals		15.7	39.3
Lawyer IV	110011	9.1	15.2
Admin., State Personnel Div.	166022	3.0	9.1
Administrator, Liquor Division	169101	3.0	3.0
Veterinary Pathologist	041011	3.0	24.2
Grade 19 Totals		18.1	51.5
Deputy Dir. Dpt. of Fish & Game	169099	6.7	13.4
Admin., Worker's Comp. Division	169130	6.7	13.3
Grade 20 Totals		13.3	26.7
Admin., Investments Division	020001	14.3	14.3
Grade 21 Totals		14.3	14.3
Admin., Corrections Division	195029	4.0	11.8
Grade 22 Totals		4.0	11.8

IN-STATE OCCUPATIONAL SAMPLE

In the last in-state salary survey published by the State of Montana, reliable results were obtained by personal interview from 300 employers (154 employers or 51 percent cooperated). Since time and money did not allow the opportunity to interview employers individually for this survey, it was decided to send a mail questionnaire to 500 Montana-based employers. It was anticipated that 40 percent, or 200, of the surveyed employers would return reliable responses.

The in-state survey population consists of all possible job matches for the selected in-state key classes which exist in the State of Montana. The publication, "Statewide Industry/Occupation Projections," which was printed in October of 1977 by the Employment Security Division (ESD), estimates the number of people employed in various occupational clusters and the average annual openings expected for these groups. With this information, the population for each occupational group is defined as 80% of the 1974 estimates of each groups' employment plus 2½ years of average annual openings and minus the state jobs in each group. The 80% factor is used because the groups contain jobs or levels of jobs which are not matches for the selected key classes. Table 3 lists population estimates by occupational groups, including the total (41,864) for all groups. With the population defined, the next step was to identify the employer sources from which appropriate job matches could be made. By nature some occupational groups are found more often in specific industries.

TABLE 3

ESTIMATES OF OCCUPATIONAL POPULATIONS

<u>Occupational Groups</u>	<u>Statewide Population of Comparable Jobs</u>
General Office Clerks	3480
Clerk Stenographers	480
Kitchen/Bakery Helpers	1120
Laborers	2160
Survey Aides	200
Food Service Workers	1080
Secretaries	5160
Library Clerks	264
Nurse's Aides	2960
Custodial Workers	5360
Drafters	480
Computer Operators	240
Cooks	3920
Licensed Practical Nurses	1080
Accounting Technicians	2320
Equipment Operators	2000
Engineering Technicians	200
Police Patrol Officers	1000
Computer Programmers	120
Accountants	1760
Social Workers	320
Equipment Mechanics	1760

TABLE 3 (Continued)

Civil Engineers	2080
Ungraded Room Teachers	400
Lawyers	800
Maintenance Plumbers	480
TOTAL	41,864

Once each year ESD produces statistics which lists the numbers of persons employed by each organization whose employees are covered under the state unemployment insurance program. This list, exclusive of state government agencies, sums to 19,580 employers with 202,735 employees for first quarter 1977, which, at the time the sample was selected, was the most recently available data source. In the list, employers are categorized by the number of employees they have and is shown in Table 5.

Estimates of the numbers of people employed by occupation in Montana's mining, construction, communications, public utilities, transportation, finance, insurance, and real estate industries are available from publications produced by ESD. The occupational estimates which compare most closely to the description of our key classes were examined to determine which industries are most capable of producing job matches for our survey.

Occupational estimates for Montana's manufacturing, wholesale trade, retail trade, service, and public administration (government) industries were not available at the time the in-state employer sample was selected. The authors were forced to make educated guesses to identify those industries which would most reliably provide appropriate job matches. The following list (Table 4) represents those industries that will most effectively produce job matches to the selected key classes:

TABLE 4

LIST OF PRIMARY INDUSTRY SOURCES FOR MATCHING JOBS

Library Clerks:

- Extremely large firms
- City and county governments
- School districts - private colleges

Food Service Occupations (includes cooks and kitchen/bakery helpers):

- School districts - private colleges
- Eating and drinking establishments
- Hotels, motels and other lodging places
- Hospitals, large clinics, and nursing homes
- Educational services industry

Engineering Occupations (civil engineers, survey aides, drafters and engineering technicians):

- Public utilities industry
- Mining industry
- Communication industry
- Construction industry
- Transportation industry

TABLE 4 (Continued)

Engineering consultant firms
Large city and county governments

Health Care Occupations (nurses and nurse's aides):

Hospitals, clinics, and nursing homes
School districts - private colleges

Data Processing Occupations (computer operators and programmers):

Large firms in mining, construction, manufacturing, retailing,
transportation, communication, public utilities, and wholesale
industries
Finance, insurance, real estate and service industries,
especially business services
Data processing consultant firms
Large City and county governments

Accounting Occupations (accountants and accounting technicians):

Same as data processing occupations, especially finance,
insurance, and real estate industries
Accounting consultant firms

Social Service Occupations:

Social Services Industry

Custodial and Clerical Occupations, except Library Clerks:

All industries

Equipment Operators:

Construction, mining and transportation industries

Police Patrol Officers:

City and county governments
Private colleges
Protective service firms

Ungraded Room Teachers:

School districts

Lawyers:

City and county governments
Large firms
Law firms

Maintenance Plumbers:

Construction industry, especially special trade construction
Large firms
Hotels, motels and other lodging places
City and county governments

Equipment Mechanics:

Mining, construction, manufacturing and transportation industries
Automotive service and repair industry
City and county governments

TABLE 5

ESD METHOD FOR GROUPING EMPLOYERS BY EMPLOYMENT SIZE

<u>Size Class</u>	<u>Number of Employees</u>
1	0 - 3
2	4 - 9
3	10 - 19
4	20 - 49
5	50 - 99
6	100 - 249
7	250 - 499
8	500 - 999
9	1,000 and over

As in past Montana salary surveys, employers with 19 or less employees were omitted from the list of firms to be surveyed because they are too small to produce adequate data, and too expensive (per unit of information) to sample. Employees of small firms generally have varied duties which do not closely coincide with descriptions written for the survey key classes; therefore, it would be difficult to identify employees meeting key class specifications. The effect of omitting these small firms is negligible, since it is expected that they contain very few of the elements within the previously defined in-state population.

The omission of size class 1 through 3 firms left us with 1,903 employers, from which 500 were to be surveyed.

By selecting 20% of these employers in size class 4, 33% of those in size classes 5 and 6 combined, and 100% of those in size classes 7, 8 and 9, a list of 504 employers was produced. If this was the only method utilized, 83 size class 4 retail firms would have been selected out of a total of 258 size class 4 firms. Previously it was illustrated that some industries are more capable of providing appropriate job matches than others. Thus, it was necessary to sample some employers within the same size class at a greater frequency than others.

The list of Industry Job Match Sources (Table 4) was carefully examined and employers by industry were grouped according to their ability to produce appropriate job matches. Firms which were to be selected with the highest frequency are categorized as Group A and included the industries of metal mining; all types of construction; motor freight transportation and warehousing; eating and drinking places; all banking, finance, insurance, and real estate type industries; hotels and other lodging places; business services, such as data processing and business consulting; automotive repair, services and garages; social services; engineering and accounting consulting firms; and, city and county governments. Group B employers were selected at a frequency which was half that of Group A firms and include the industries of all other mining, except metal mining; all manufacturing; all other transportation industries, except railroads and motor freight transportation and warehousing; communication; electric, gas and sanitary services; all wholesale trades; personal services; miscellaneous repair services and; amusement and recreation services. Group C employers were selected at half the frequency of Group B firms and consist of all retail trade industries, other than eating and drinking places.

After size class 1 through 3 employers were omitted from our firm selection population, the remaining employers were stratified for selection purposes according to size class. Employers with 250 or more employees were selected with certainty. Those within size classes 5 or 6 were selected at less frequencies, depending upon their group status. Firms in size class 4 were selected even less frequently, and the chance of selection varied by group status. The justification for this stratification technique is larger firms are more capable of producing appropriate job matches, and they are more likely to have more job openings, and, as such, the State has a greater need to compete with them in the area of salary and benefits. The sample of job matches is clustered within those selected firms that participated in the survey.

The main objective in sampling was to obtain a list of approximately 500 employers from which salary data for our key classes could be solicited (487 were actually selected). We also hoped to achieve an employer response rate of 40% (35.5% was actually achieved). In terms of total employment within the firms selected, the participation rate was 48.2%. The number of positions actually matched represents 14.7% of our defined population. Table 6 depicts the techniques used and the results of our sampling procedures. Table 7 illustrates the number of positions matched vs. population by key class and by grade level.

Positions matched in Tables 6 and 7 refer to the actual number of reported job incumbents within the matched classifications. Since many employers did not report the numbers of incumbents, the results achieved, in terms of sampling representation, are presumed to be significantly greater.

TABLE 6

SAMPLING PROCEDURE RESULTS

GROUP	SIZE CLASS	NUMBER OF EMPLOYERS	EMPLOYMENT	PERCENT OF EMPLOYERS SAMPLED	NUMBER OF EMPLOYERS SURVEYED	EMPLOYMENT	NUMBER OF EMPLOYERS PARTICIPATING	EMPLOYMENT	NUMBER OF POSITIONS MATCHED	POSITIONS MATCHED PER EMPLOYER SURVEYED
A	1 - 3	9,372	35,511	0.0	0	0	0	0	0	--
	4	711	20,774	25.0	188	6,039	47	1,571	603	3.2
	5 - 6	332	30,107	40.0	135	16,048	59	6,938	1,981	14.7
	7 - 9	39	24,697	100.0	39	24,697	18	10,669	2,014	51.6
	Total	10,454	111,089	3.5	362	46,084	124	19,178	4,598	12.7
B	1 - 3	4,148	19,328	0.0	0	0	0	0	0	--
	4	334	9,736	12.5	45	1,614	18	670	209	4.6
	5 - 6	145	12,953	20.0	32	2,239	9	1,117	110	3.4
	7 - 9	20	12,403	100.0	20	12,403	15	9,815	1,142	57.1
	Total	4,647	54,420	2.1	97	16,256	42	11,602	1,461	15.1
C	1 - 3	4,157	21,809	0.0	0	0	0	0	0	--
	4	244	7,604	6.2	15	440	3	95	44	2.9
	5 - 6	75	6,791	10.0	10	1,361	2	211	7	0.7
	7 - 9	3	1,021	100.0	3	1,021	2	636	33	11.0
	Total	4,479	37,226	0.7	28	2,822	7	742	84	3.0
ALL	1 - 3	17,677	76,648	0.0	0	0	0	0	0	--
	4	1,289	38,115	20.0	248	8,093	68	2,336	856	3.5
	5 - 6	552	49,851	33.3	177	19,648	70	8,266	2,098	11.9
	7 - 9	62	38,121	100.0	62	38,121	35	21,120	3,189	51.4
	Total	19,580	202,735	2.6	487	65,862	173	31,722	6,143	12.6

TABLE 7

NUMBER OF POSITIONS MATCHED VERSES POPULATION

<u>CLASS</u>	<u>MONTANA POPULATION</u>	<u>NUMBER OF POSITIONS MATCHED</u>	<u>SAMPLING FRACTION AS A %</u>
General Office Clerk I	1124	388	34.5
Grade 4 Totals	1124	388	34.5
Clerk Stenographer I	335	125	37.3
General Office Clerk II	898	310	34.5
Kitchen/Bakery Helper II	1120	97	8.7
Laborer I	2160	634	29.4
Grade 5 Totals	4513	1166	25.8
Grade 5 Totals excluding Laborers	2353	532	22.6
Survey Aide I	80	2	2.5
Clerk Stenographer II	145	54	37.2
General Office Clerk III	842	290	34.4
Food Service Worker II	1080	274	25.4
Grade 6 Totals	2147	620	28.9
Secretary I	1729	166	9.6
General Office Clerk IV	616	213	34.6
Library Clerk II	264	43	16.3
Nurse's Aide I	2960	495	16.7
Custodial Worker III	5360	359	6.7
Grade 7 Totals	10,929	1276	11.7
Drafter II	249	27	10.8
Survey Aide II	120	3	2.5
Secretary II	1600	154	9.6
Computer Operator I	157	36	22.9
Cook II	3920	126	3.2
Grade 8 Totals	6046	346	5.7
Drafter III	231	25	10.8
Licensed Practical Nurse I	827	154	18.6
Accounting Technician I	2320	109	4.7
Secretary III	1269	122	9.6
Computer Operator II	83	19	22.9
Equipment Operator II	2000	398	19.9
Grade 9 Totals	6730	327	12.3
Engineering Technician I	107	8	7.5
Licensed Practical Nurse II	253	47	18.6
Administrative Secretary I	562	54	9.6
Police Patrol Officer II	1000	92	9.2
Grade 10 Totals	1922	201	10.5
Computer Programmer I	44	20	45.5
Accountant I	667	53	7.9
Social Worker I	145	14	9.7
Equipment Mechanic III	1760	373	21.2
Grade 11 Totals	2616	460	17.6
Civil Engineer I	54	4	7.4
Professional Nurse I	1500	401	26.7

TABLE 7 (Continued)

<u>CLASS</u>	<u>MONTANA POPULATION</u>	<u>NUMBER OF POSITIONS MATCHED</u>	<u>SAMPLING FRACTION AS A %</u>
Ungraded Room Teacher II	400	26	6.5
Accountant II	1093	87	8.0
Social Worker II	175	17	9.7
Grade 12 Totals	3222	535	16.6
Civil Engineer II	341	25	7.3
Engineering Technician III	93	7	7.5
Computer Programmer II	93	7	46.1
Professional Nurse II	356	95	26.7
Lawyer I	800	11	1.4
Maintenance Plumber	480	73	15.2
Grade 13 Totals	2146	246	11.5
Civil Engineers III	109	8	7.3
Professional Nurse III	224	60	26.8
Grade 14 Totals	333	68	20.4
Civil Engineer IV	41	3	7.3
Grade 15 Totals	41	3	7.3
Civil Engineer V	95	7	7.4
Grade 16 Totals	95	7	7.4
GRAND TOTALS	41,864	6,143	14.7

KEY CLASS DESCRIPTIONS

Job elements were defined from analyses of position descriptions and job audits, and key class descriptions were simply abbreviated from established class specifications. The idea was to simplify and reduce the amount of reading for the respondents and not to omit the key elements.

The description format was standardized for all selected classes so that respondents could easily locate specific job factors. The "General Description" section briefly mentioned the type of supervision received, the type of supervision exercised and the general duties performed under this classification. If whole or parts of series were included as key classes, the latter part of the "General Description" contained a statement or statements which would aid in distinguishing the class from other similar classes and from other classes within the same series. The section on "Example of Duties" is self-explanatory, as is the section on "Desired Qualifications." Information asked of the respondents about a particular class included their comparable title, number of incumbents, and minimum, maximum and average salaries.

Also included with each packet was a brief description of the State of Montana's terminology for various types of supervision received. For the out-of-state survey, where supervisor and administrator type classes were selected, illustrations of our organizational structure were enclosed with the packets. These aids and an example of how key class descriptions were developed from established class specifications are included in Appendix I.

QUESTIONNAIRE DESIGN

The primary intent in designing the pay policy and fringe benefit questionnaire was to ask questions which were capable of eliciting consistent and unbiased responses, which would, in turn, specifically address the previously defined survey issues. Comments from other Classification and Pay professionals were sought in an attempt to minimize ambiguity in wording the questions. The actual questions utilized in the survey are presented in Appendix II.

The first three questions deal with some specific pay practices, such as granting across-the-board increases to maintain employee purchasing power, allocating merit increases and rewarding employee longevity. These were expected to provide data for comparing pay policies and for possibly explaining differences between average survey salaries and Montana average salaries.

Questions 4 through 9 elicited data to be used to compare employer policies in granting leave. This was necessary because payment for non-productive hours generally represents a significant cost to employers in terms of total compensation.

Questions 10 and 11 respectively addressed group insurance and retirement plans, which are also quite costly to employers.

SUMMARY OF FINDINGS

The following pages represent the most significant findings for both the in-state and out-of-state survey.

The Statistical Package for the Social Sciences (SPSS) was used for the computer analysis of the data collected in this survey. The reports generated are so numerous that we decided not to include them in the body of the report. We believe that the following summary is more understandable for the typical reader.

TABLE 8

IN-STATE SALARY SURVEY
SUMMARY OF FINDINGS
GRADES 4 THROUGH 13

The in-state salary survey covered grades 4 through 13 in the State pay system. The in-state survey compares the salary and benefits paid by the State with the prevailing rate salaries and benefits paid by other Montana based employers.

1. The entry level salaries (step 1) appear, in general, to be competitive with other Montana based employers.

<u>Grade</u>	<u>State</u>	<u>Average Other Employers</u>	<u>Percent Difference</u>
4	6,094	6,321	-3.7
5	6,645	6,802	-2.4
6	7,248	7,170	+1.1
7	7,916	7,499	+5.3
8	8,638	7,790	+9.8
9	9,438	9,453	- .2
10	10,316	10,304	+ .1
11	11,273	11,982	-6.3
12	12,335	12,165	+1.4
13	13,489	13,738	-1.8

2. The maximum salaries (step 13) for grades 4 through 13 appear to be competitive in the State pay plan. The maximum salaries represent the upper limit employers are willing to pay for a job at a particular work level.

<u>Grade</u>	<u>State</u>	<u>Average Other Employers</u>	<u>Percent Difference</u>
4	7,740	7,787	- .6
5	8,451	8,361	+1.1
6	9,223	9,001	+2.4
7	10,082	9,251	+8.2
8	11,021	9,721	+11.8
9	12,049	11,623	+3.5
10	13,176	12,294	+6.7
11	14,417	14,392	+ .2
12	15,766	15,731	+ .2
13	17,249	16,640	+3.5

3. The salaries at midpoint appear to be in the competitive range.

<u>Grade</u>	<u>State</u>	<u>Average Other Employers</u>	<u>Percent Difference</u>
4	6,917	7,054	-2.0
5	7,548	7,582	- .4
6	8,236	8,085	+1.8
7	8,999	8,375	+6.9
8	9,838	8,756	+11.0
9	10,744	10,538	+1.9
10	11,746	11,299	+3.8
11	12,845	13,187	-2.7
12	14,050	13,948	+ .7
13	15,369	15,189	+1.2

TABLE 8 (Continued)

4. The actual average salaries paid to State employees are in general below the actual average salaries paid by other Montana based employers. Actual average salaries are the average of salaries paid to employees in a work level. The State employees are more often found at the lower range of the salary grade than is the case for employees with other Montana based employers.

<u>Grade</u>	<u>State</u>	<u>Average Other Employers</u>	<u>Percent Difference</u>
4	6,377	7,109	-11.5
5	6,801	7,496	-10.2
6	7,586	8,021	-5.7
7	8,465	8,348	+1.4
8	9,243	8,626	+6.7
9	10,102	10,577	-4.7
10	11,042	11,258	-2.0
11	12,062	13,137	-8.9
12	13,202	13,839	-4.8
13	14,437	15,226	-5.5

5. State government is below the average of other Montana based employers for total compensation. (Total compensation is the actual average salaries plus paid holidays, vacation leave, sick leave and employer paid contributions to insurance and retirement.)

<u>Grade</u>	<u>State</u>	<u>Average Other Employers</u>	<u>Percent Difference</u>
4	8,073	9,016	-11.7
5	8,590	9,468	-10.2
6	9,558	10,078	-5.4
7	10,632	10,432	+1.9
8	11,590	10,807	+6.8
9	12,647	13,152	-4.0
10	13,802	14,099	-2.2
11	15,053	16,266	-8.1
12	16,450	17,038	-3.6
13	17,974	18,777	-4.5

TABLE 9
IN-STATE SALARY SURVEY RESULTS

GRADE	SALARY LEVEL	MONTANA SALARY	MEAN SALARY SURVEYED	STANDARD DEVIATION	STANDARD ERROR	(EMPLOYERS) SAMPLE SIZE
4	Minimum	\$ 6,094	\$ 6,321	\$ 1,246	\$ 152.16	67
	Maximum	7,740	7,787	1,759	214.88	67
	Average	6,377	7,109	1,586	231.41	47
5	Minimum	6,645	6,802	1,550	143.28	117
	Maximum	8,451	8,361	2,079	192.19	117
	Average	6,801	7,496	1,880	206.33	83
6	Minimum	7,248	7,170	1,617	147.59	120
	Maximum	9,223	9,001	2,399	219.01	120
	Average	7,586	8,021	2,082	224.50	85
7	Minimum	7,916	7,499	1,771	127.81	192
	Maximum	10,082	9,251	2,282	164.71	192
	Average	8,465	8,348	2,005	168.23	142
8	Minimum	8,638	7,790	1,731	158.67	119
	Maximum	11,021	9,721	2,844	260.75	119
	Average	9,243	8,626	2,287	234.61	95
9	Minimum	9,438	9,453	2,612	202.12	167
	Maximum	12,049	11,623	3,253	251.69	167
	Average	10,102	10,577	2,815	241.41	136
10	Minimum	10,316	10,304	2,447	318.58	59
	Maximum	13,176	12,294	2,880	374.95	59
	Average	11,042	11,258	2,480	365.60	46
11	Minimum	11,273	11,982	3,432	372.28	85
	Maximum	14,417	14,392	4,066	440.97	85
	Average	12,062	13,137	3,714	460.68	65

TABLE 3 (Continued)

GRADE	SALARY LEVEL	MONTANA SALARY	MEAN SALARY SURVEYED	STANDARD DEVIATION	STANDARD ERROR	(EMPLOYERS) SAMPLE SIZE
12	Minimum	12,335	12,165	2,956	341.32	75
	Maximum	15,766	15,731	4,554	525.84	75
	Average	13,202	13,839	3,328	444.68	56
13	Minimum	13,489	13,738	3,094	409.76	57
	Maximum	17,249	16,640	3,546	469.67	57
	Average	14,437	15,226	3,041	443.57	47
14	Minimum	14,748	14,037	2,359	630.59	14
	Maximum	18,617	17,101	4,001	1,069.39	14
	Average	15,766	14,414	2,453	817.81	9
15	Minimum	16,138	18,664	1,301	751.01	3
	Maximum	20,040	24,776	6,574	3,795.40	3
	Average	17,189	22,650	4,370	3,090.00	2
16	Minimum	17,672	20,469	3,519	1,436.50	6
	Maximum	21,610	25,054	5,764	2,353.24	6
	Average	18,759	21,477	4,085	2,042.26	4

TABLE 10

IN-STATE BENEFIT SURVEY

1. Out of 176 Montana based employers responding, 123 employers reported that they give periodic across-the-board adjustments to their employees.
 - a) 74 employers reported that their across-the-board salary adjustments were specifically tied to a price deflator, such as the Consumer Price Index.
 - b) 105 employers reported their across-the-board salary adjustments were made on an annual basis.
 - c) 14 employers reported that their across-the board salary adjustments were made more often than once a year.
 - d) 99 employers reported that employees could expect salary adjustments on a definite date, such as July 1 of each year.
2. Out of 177 Montana based employers reporting, 111 employers grant merit increases to their employees.
 - a) 66 employers reported that employees are eligible for merit increases on an annual basis.
 - b) 22 employers reported that employees may be eligible for merit increases more often than once a year.
 - c) The percentage of employees who actually receive merit increases when they are eligible varies widely among Montana based employers.
 - 1) 34 employers reported that at least 90 percent of eligible employees receive the merit salary increase.
 - 2) 25 employers reported that 10 percent or less of eligible employees received the merit salary increase.
 - 3) 18 employers reported that the percent of eligible employees receiving a merit increase ranged between 10 percent and 90 percent.
 - 4) 19 employers reported that all of the eligible employees received merit increases.
 - d) 31 employers reported that they have pay ranges with an average of five salary steps to the maximum.
3. Of 174 employers responding to the question, 55 reported that they provide longevity adjustments, other than merit, to employee salaries.
 - a) 10 employers reported that employees must wait one year before receiving the first longevity adjustment.
 - b) Out of 13 employers reporting the average longevity adjustment is 2.8 percent of salary. The longevity adjustments ranged from 1 percent to 10 percent among the employers reporting.

4. The average number of paid holidays granted by Montana based employers is 8.2 days. Six employers allowed 0 days and were included in calculating the average. The State of Montana grants 10 paid holidays per year in addition to general election day every other year.
5. Montana based employers generally grant less vacation days than the state. 177 employers responded to the question.

<u>Years of Service</u>	<u>State of Montana</u>	<u>Average Other Employers</u>
1	15 days	10.3 days
5	15 days	13.1 days
10	18 days	15.7 days
15	21 days	17.9 days
20	24 days	19.5 days
25	24 days	20.1 days
30	24 days	20.1 days

- a) 149 employers reported that they pay for unused vacation upon termination.
- b) 145 employers reported that they pay for unused vacation in full upon termination.
6. 139 employers reported that they grant sick leave to their employees.
 - a) The average number of days granted by Montana based employers is 8.6 days a year. 38 employers allowed 0 days and were included when calculating the average. The State of Montana grants 12 days a year for sick leave.
 - b) 61 employers reported that they pay for unused sick leave upon termination.
 - c) 51 employers reported that they pay 25 percent of the unused sick leave upon termination.
7. Montana based employers provide other leave benefits to employees.
 - a) 46 employers reported that they provide paid educational leave.
 - b) 69 employers reported that they provide paid military leave.
 - c) 115 employers provide paid funeral leave.
 - d) 123 employers provide paid jury duty leave.
 - e) 33 employers provide for other paid leave such as administrative or personal leave.
8. The average Montana based employer insurance contribution as measured by percent of salary is 5 percent, as compared to the state's 3.1 percent. 177 employers responded to the question.
 - a) 167 employers reported that they provide health insurance.

TABLE 10 (Continued)

- b) 106 employers reported that they provide life insurance.
 - c) 49 employers reported that they provide dental insurance.
 - d) 17 employers reported that they provide visual insurance.
 - e) 32 employers reported that they provide other types of insurance such as short or long-term disability insurance.
9. The average employer contribution for retirement for Montana based employers is 4.5 percent of salary. 53 employers reported that they contribute nothing to retirement and were included when calculating the average. 177 employers responded to the question.
10. 41 of 176 employers responding to the question reported that they provide bonuses to employees for outstanding job performance or other reasons.
11. 23 employers reported that they promote employees automatically on acquisition of required qualifications.

TABLE 11
IN-STATE BENEFIT SURVEY RESULTS
(Yes/No Questions)

QUESTION	RESPONDING YES		RESPONDING NO		NOT RESPONDING	
	Number	Percent	Number	Percent	Number	Percent
Do you provide periodic salary adjustments across-the-board?	123	69.5	53	29.9	1	0.6
If you do provide these periodic adjustments, are they specifically tied to changes in rates of inflation?	74	41.8	47	26.6	56	31.6
Do you provide salary increases based on merit?	111	62.7	66	37.3	0	-
Do you provide longevity pay increases?	55	31.1	119	67.2	3	1.7
Do you pay for unused vacation leave upon termination?	149	84.2	27	15.3	1	0.6
If you do pay for unused vacation leave, do you pay for 100% of the accumulated leave?	145	81.9	4	2.3	28	15.8
Do you provide paid sick leave?	139	78.5	37	20.9	1	0.6
Do you pay for unused sick leave upon termination?	61	34.5	78	44.1	38	21.5
Do you provide paid educational leave?	46	26.0	131	74.0	0	-
Do you provide paid military leave?	69	39.0	108	61.0	0	-
Do you provide paid funeral leave?	115	65.0	62	35.0	0	-

TABLE 11 (Continued)

QUESTION	RESPONDING YES		RESPONDING NO		NOT RESPONDING	
	Number	Percent	Number	Percent	Number	Percent
Do you provide paid jury duty leave?	123	69.5	54	30.5	0	-
Do you provide any other types of paid leave?	33	18.6	144	81.4	0	-
Do you offer group medical insurance to your employees?	167	94.4	10	5.6	0	-
Do you offer group life insurance?	106	59.9	71	40.1	0	-
Do you offer group dental insurance?	49	27.7	128	72.3	0	-
Do you offer group visual insurance?	17	9.6	160	90.4	0	-
Do you offer any other types of group insurance coverage?	32	18.1	145	81.9	0	-
Do you offer employee pay bonuses?	41	23.2	135	76.3	1	0.6
Do you promote employees automatically upon acquisition of certain educational or experience requirements?	23	13.0	147	83.1	7	4.0

TABLE 12
IN-STATE BENEFIT SURVEY RESULTS
(Free Response Questions with a Limited Number of Response Types)

QUESTION	RESPONSE	ABSOLUTE FREQUENCY	PERCENT RELATIVE FREQUENCY
Generally, how often are your periodic adjustments granted across-the-board?	Every three months	4	3.4
	Every six months	8	6.7
	Every nine months	2	1.7
	Every year	105	88.2
	No response	58	-
Generally, how often do your employees become eligible for merit increases?	Every two months	1	1.1
	Every three months	5	5.7
	Every four months	3	3.4
	Every six months	10	11.4
	Every nine months	3	3.4
	Every year	66	75.0
	No response	89	-
How many years of service are required for an employee to receive one longevity adjustment?	One year	10	62.5
	Two years	1	6.2
	Three years	2	12.5
	Five years	3	18.8
	No response	161	-
What percent of salary is allocated for each longevity adjustment?	One percent	5	38.5
	Two percent	4	30.7
	Four percent	2	15.4
	Five percent	1	7.7
	Ten percent	1	7.7
	No response	164	-
What percent of accumulated unused sick leave is paid upon termination?	Ten percent	1	1.6
	Twenty five percent	51	83.6
	Thirty three percent	1	1.6
	Fifty percent	4	6.6
	One hundred percent	4	6.6
	No response	116	-

TABLE 13
IN-STATE BENEFIT SURVEY RESULTS
(Remaining Free Response Questions)

QUESTION	MEAN	RANGE	STANDARD DEVIATION	STANDARD ERROR	SAMPLE SIZE
Of those eligible, what percent of employees are actually granted merit increases?	56.6	1-100	41.7	4.75	77
How many merit increases can a person receive while employed at a particular grade level?	4.7	1-15	3.6	0.65	31
How many paid holidays do you authorize per year?	8.2	0-15	2.7	0.21	177
How many days paid annual vacation leave do you authorize after one year of service?	10.3	0-18	4.1	0.31	177
How many days paid annual vacation leave do you authorize after five years of service?	13.1	0-24	3.2	0.24	177
How many days paid annual vacation leave do you authorize after ten years of service?	15.7	0-24	3.5	0.26	177
How many days paid annual vacation leave do you authorize after fifteen years of service?	17.9	0-26	4.2	0.32	177
How many paid annual vacation leave days do you authorize after twenty years of service?	19.5	0-26	5.1	0.38	177
How many days paid annual vacation leave do you authorize after twenty-five years of service?	20.1	0-30	5.4	0.41	177

TABLE 13 (Continued)

QUESTION	MEAN	RANGE	STANDARD DEVIATION	STANDARD ERROR	SAMPLE SIZE
How many days paid annual vacation leave do you authorize after thirty years of service?	20.1	0-30	5.5	0.41	177
How many days paid sick leave do you authorize per year?	8.6	0-20	5.5	0.41	177
What percent of salary do you contribute to an employee's group insurance plans? (Includes medical, life, dental, visual, etc.)	5.0	0-13.6	3.2	0.24	177
What percent of salary do you contribute to an employee's retirement plan?	4.5	0-20	3.8	0.28	177

TABLE 14

AVERAGE HEALTH AND LIFE INSURANCE CONTRIBUTION BY SIZE OF EMPLOYER

Employer Size	Number of Employers Responding	Average Contribution to Health and Life Insurance as a Percent of Average Salary	Standard Deviation	Standard Error
250 or more employees	35	6.05	2.94	0.50
500 or more employees	15	6.26	3.79	0.98
1000 or more	3	7.10	2.55	1.47

The State of Montana contributed 2.2% of the average salary toward health and life insurance in FY-78 and will contribute 3.1% of the average salary in FY-79.

AVERAGE CONTRIBUTION TO RETIREMENT BY SIZE OF EMPLOYER

Employer Size	Number of Employers Responding	Contribution to Retirement as a Percent of Average Salary	Standard Deviation	Standard Error
250 or more employees	35	5.3	3.1	.52
500 or more employees	15	5.2	2.5	.65
1000 or more	3	6.0	0	0

The State of Montana contributed 5.95% of average salary toward retirement in FY-78 and will contribute 6.2% of average salary in FY-79.

OUT-OF-STATE SURVEY

A survey questionnaire was developed and sent to fifteen states. We did not survey all 50 states because of expense and the existence of other national surveys that could give general information on how Montana compares to all states. The validity of the data is more acceptable than generally found through the questionnaire method, since the questions were directed to and completed by central personnel agencies in the various states. In addition, other states are likely to have direct counterparts to the classes surveyed so valid comparisons should have been obtained. We also followed up the survey with phone conversations to clarify data included on the questionnaire.

The fifteen states were selected on the basis of immigration statistics obtained from the Employment Security Division. These statistics indicate that it is from these states that people most often move to Montana for employment. The use of immigration statistics represents a logical competitive relationship between Montana and the selected states and avoids the distortion that could occur if we included the larger and more industrial eastern states in the survey.

The states selected were the following: California, Colorado, Idaho, Iowa, Kansas, Minnesota, Nebraska, Nevada, North Dakota, Oregon, South Dakota, Utah, Washington, Wisconsin and Wyoming. All of the selected states responded to our survey.

TABLE 10
OUT-OF-STATE SURVEY
SUMMARY OF FINDINGS

These findings relate only to grades 11 through 20 in the Montana classification and pay program.

1. The Montana entry level (step 1) salaries appear in general to be competitive to the states surveyed with the exception of grades 15 and 16.

<u>Grade</u>	<u>Montana</u>	<u>Average of Survey States</u>	<u>Percent Difference</u>
11	11,273	10,948	+2.9
12	12,335	12,030	+2.5
13	13,489	13,331	+1.2
14	14,748	15,062	-2.1
15	16,138	17,988	-11.5
16	17,672	18,752	-6.1
17	19,338	19,192	+ .8
18	21,173	21,007	+ .8
19	23,193	23,576	-1.7
20	25,396	23,985	+5.6

2. The maximum salaries (step 13) of the Montana pay plan are generally below the average maximum salaries of the states surveyed.

<u>Grade</u>	<u>Montana</u>	<u>Average of Survey States</u>	<u>Percent Difference</u>
11	14,417	14,278	+1.0
12	15,766	15,850	- .5
13	17,249	17,606	-2.1
14	18,617	19,764	-6.2
15	20,040	23,940	-19.5
16	21,610	24,466	-13.2
17	23,315	25,858	-10.9
18	25,193	28,221	-12.0
19	27,261	30,482	-11.8
20	29,516	30,199	-2.3

3. The midpoint salaries of the Montana pay plan are generally below the average of the midpoint salaries of the states surveyed.

<u>Grade</u>	<u>Montana</u>	<u>Average of Survey States</u>	<u>Percent Difference</u>
11	12,845	12,613	+1.8
12	14,050	13,940	+ .8
13	15,369	15,468	- .6
14	16,682	17,413	-4.4
15	18,089	20,964	-15.9
16	19,641	21,609	-10.0
17	21,326	22,525	-5.6
18	23,183	24,614	-6.2
19	25,227	27,029	-7.1
20	27,456	27,092	+1.3

TABLE 15 (Continued)

4. The average of actual salaries paid to employees within a grade are lower in Montana than for the average of the states surveyed.

<u>Grade</u>	<u>Montana</u>	<u>Average of Survey States</u>	<u>Percent Difference</u>
11	12,062	12,070	- .1
12	13,202	13,805	-4.6
13	14,437	15,154	-5.0
14	15,766	17,784	-12.8
15	17,189	21,483	-25.0
16	18,759	22,528	-20.1
17	20,463	23,863	-16.6
18	22,678	26,068	-14.9
19	24,408	29,043	-19.0
20	26,663	30,348	-13.8

5. The total compensation package for Montana in grades 11-20 are below the average of the other states. (Total compensation includes average actual salaries, paid holidays, vacation leave, sick leave, retirement contributions and insurance contributions paid by the employer.)

<u>Grade</u>	<u>Montana</u>	<u>Average of Survey States</u>	<u>Percent Difference</u>
11	15,053	15,785	-4.9
12	16,450	17,745	-7.9
13	17,974	19,599	-9.0
14	19,597	22,552	-15.1
15	21,349	27,012	-26.5
16	23,280	28,561	-22.7
17	25,374	29,665	-16.9
18	28,098	32,722	-16.5
19	30,217	35,631	-17.9
20	32,982	36,062	-9.3

TABLE 16
OUT-OF-STATE SALARY SURVEY RESULTS

GRADE	SALARY LEVEL	MONTANA SALARY	MEAN SALARY SURVEYED	STANDARD DEVIATION	STANDARD ERROR	NUMBER OF CLASSES MATCHED IN SURVEY STATES (SAMPLE SIZE)
7	Minimum	\$ 7,916	\$ 7,707	\$1,227	\$ 316.78	15
	Maximum	10,082	9,886	1,089	281.17	15
	Average	8,465	8,269	1,373	413.83	11
	Adjusted Avg.*	8,465	8,395	1,391	359.28	15
8	Minimum	8,638	8,605	1,204	310.98	15
	Maximum	11,021	11,179	1,072	276.89	15
	Average	9,243	10,141	1,469	442.99	11
	Adjusted Avg.*	9,243	10,015	1,408	363.48	15
9	Minimum	9,438	9,301	1,292	372.95	12
	Maximum	12,049	12,160	1,836	530.01	12
	Average	10,102	10,014	1,580	597.00	7
	Adjusted Avg.*	10,102	10,365	1,590	458.91	12
10	Minimum	10,316	8,812	759	219.16	12
	Maximum	13,176	11,511	1,064	307.27	12
	Average	11,042	9,037	704	265.98	7
	Adjusted Avg.*	11,042	9,742	1,166	336.65	12
11	Minimum	11,273	10,948	1,144	130.33	77
	Maximum	14,417	14,278	1,435	163.50	77
	Average	12,062	12,070	1,543	209.95	54
	Adjusted Avg.*	12,062	12,187	1,471	167.64	77
12	Minimum	12,335	12,030	1,402	143.10	96
	Maximum	15,766	15,850	1,806	184.34	96
	Average	13,202	13,805	1,824	221.20	68
	Adjusted Avg.*	13,202	13,784	1,733	176.92	96

TABLE 16 (Continued)

GRADE	SALARY LEVEL	MONTANA SALARY	MEAN SALARY SURVEYED	STANDARD DEVIATION	STANDARD ERROR	NUMBER OF CLASSES MATCHED IN SURVEY STATES (SAMPLE SIZE)
13	Minimum	\$ 13,489	\$ 13,331	\$ 1,962	\$ 205.68	91
	Maximum	17,249	17,606	2,761	280.01	91
	Average	14,437	15,154	2,612	331.67	62
	Adjusted Avg.*	14,437	15,255	2,518	263.96	91
14	Minimum	14,748	15,062	2,218	229.97	93
	Maximum	18,617	19,764	2,830	293.43	93
	Average	15,766	17,784	2,800	342.13	67
	Adjusted Avg.*	15,766	17,597	2,737	283.81	93
15	Minimum	16,138	17,988	3,005	325.94	85
	Maximum	20,040	23,940	3,749	406.67	85
	Average	17,189	21,483	3,917	497.48	62
	Adjusted Avg.*	17,189	21,134	3,652	396.10	85
16	Minimum	17,672	18,752	3,692	527.49	49
	Maximum	21,610	24,466	4,289	612.67	49
	Average	18,759	22,528	4,837	817.52	35
	Adjusted Avg.*	18,759	22,416	4,426	632.23	49
17	Minimum	19,338	19,192	2,772	388.15	51
	Maximum	23,315	25,858	3,552	497.42	51
	Average	20,463	23,862	3,598	608.12	35
	Adjusted Avg.*	20,463	23,312	3,285	460.01	51
18	Minimum	21,173	21,007	4,259	649.51	43
	Maximum	25,193	28,221	5,222	796.36	43
	Average	22,678	26,068	6,079	1,091.88	31
	Adjusted Avg.*	22,678	25,738	5,511	840.39	43

TABLE 16 (Continued)

GRADE	SALARY LEVEL	MONTANA SALARY	MEAN SALARY SURVEYED	STANDARD DEVIATION	STANDARD ERROR	NUMBER OF CLASSES MATCHED IN SURVEY STATES (SAMPLE SIZE)
19	Minimum	\$ 23,193	\$ 23,576	\$ 6,058	\$ 982.69	38
	Maximum	27,261	30,482	5,948	964.93	38
	Average	24,408	29,043	5,970	1,128.24	28
	Adjusted Avg.*	24,408	28,008	5,976	969.42	38
20	Minimum	25,396	23,985	5,252	1,174.36	20
	Maximum	29,516	30,199	5,521	1,234.45	20
	Average	26,663	30,347	5,448	1,456.06	14
	Adjusted Avg.*	26,663	28,380	6,006	1,343.06	20
21	Minimum	27,822	26,825	7,035	2,345.16	9
	Maximum	31,999	34,214	6,492	2,163.88	9
	Average	29,482	31,502	6,398	2,418.05	7
	Adjusted Avg.*	29,482	31,699	6,327	2,108.91	9
22	Minimum	30,483	28,986	2,344	885.85	7
	Maximum	34,722	36,980	5,683	2,147.89	7
	Average	31,535	35,221	5,742	2,170.35	7

* For states not reporting average salaries, midpoint salaries were used to represent average salaries.

TABLE 17
OUT-OF-STATE BENEFIT SURVEY

1. All 15 states reported that they adjust salaries periodically across-the-board to reflect changes in the cost of living.
 - a) Five states reported that these across-the-board adjustments are tied directly to a price deflator, such as the Consumer Price Index.
 - b) 11 states reported that the salary adjustments are granted annually. Minnesota stated that some salaries are adjusted every six months and the remainder annually, depending on their work agreements.
2. 14 states reported that they provide merit increases for their employees.
 - a) 12 states reported that employees are eligible for merit increases on an annual basis.
 - b) The percentage of eligible employees who are actually granted merit increases varies widely (5 to 100%) among the reporting states. Five states grant such increases to at least 90% of the eligible employees. Two states grant 5% and one state grants 30%.
 - c) Out of 10 states reporting, the average number of steps to the maximum level of a pay range is seven.
3. Eight states reported that they provide longevity adjustments to salaries.
 - a) Of five reporting states, three stated that their employees must serve five years before receiving their first longevity increment, one stated that their employees must serve eight years and one stated that their employees must serve at least 11 years.
 - b) In two states each longevity increment amounts to a 1% increase in salary. In one state each longevity increment amounts to a 2% salary increase. In another state each increment amounts to a 3% salary increase.
4. The average number of paid holidays granted by the states surveyed is 10.1 days, which compares to the State of Montana's policy of granting 10 paid holidays per year in addition to general election day every other year.
5. Montana is slightly more liberal in granting vacation leave than those states surveyed.

<u>Years of Service</u>	<u>Vacation Leave in Montana</u>	<u>Average of Other States</u>
1	15	12.1
5	15	14.9
10	18	17.7
15	21	20.5
20	24	21.4
25	24	21.9
30	24	21.9

6. All 15 states provide for full payment of unused vacation leave.
7. All 15 states provide paid sick leave to their employees.
 - a) The average annual accrual rate for sick leave for the surveyed state is 13.4 days. One state reported that it allowed 90 days per year. This figure was not used in average, since the state did not compensate for unused sick leave at termination and including this extreme figure would distort the statistics significantly.
 - b) Four states provide for payment of unused sick leave upon termination. A few other states reported that they compensated for portions of unused accumulated sick leave upon death or retirement only. A few other states reported that sick leave could be added to service time at retirement.
 - c) Of the four states that provide payment of unused sick leave at termination, three pay at the rate of 50% of an employee's accumulated credits, and one pays at the 25% rate.
8. The states surveyed also provide for other paid leave opportunities.
 - a) Nine states provide paid educational leave.
 - b) All 15 states provide paid funeral leave.
 - c) All 15 states provide paid military leave.
 - d) 14 states provide paid jury duty leave.
 - e) Six states also provide paid leave for administrative, voting or personal purposes.
9. Of the states surveyed, the average state insurance contribution is \$47.23 per month per employee. These monthly contributions range from a low of \$20.00 to a high of \$91.00.
 - a) All 15 states offer health insurance to their employees.
 - b) 13 states offer life insurance.
 - c) Four states offer dental insurance.
 - d) Two states offer visual insurance.
 - e) Three states offer long-term disability insurance.
10. Of the states surveyed, the average state contribution toward retirement plans which are distinct from Social Security is 7.2% of salary. These contributions range from a low of 4.5% to a high of 13.5%.
11. Two of the fifteen states surveyed indicated that they provide pay bonuses to their deserving employees.
12. Two states indicated that they promote employees automatically upon the acquisition of required qualifications.

TABLE 18
OUT-OF-STATE BENEFIT SURVEY RESULTS
(Yes/No Questions)

Question	States Responding Yes		States Responding No	
	Number	Percent	Number	Percent
Do you provide periodic salary adjustments across-the-board?	15	100.0	0	-
If you do provide these periodic adjustments, are they specifically tied to changes in rates of inflation?	5	33.3	10	66.7
Do you provide salary increases based on merit?	14	93.3	1	6.7
Do you provide longevity pay increases?	8	53.3	7	46.7
Do you pay for unused vacation leave upon termination?	15	100.0	0	-
If you do pay for unused vacation leave, do you pay for 100% of the accumulated leave?	15	100.0	0	-
Do you provide paid sick leave?	15	100.0	0	-
Do you pay for unused sick leave upon termination?	5	33.3	10	66.7
Do you provide paid educational leave?	9	60.0	6	40.0
Do you provide paid military leave?	15	100.0	0	-
Do you provide paid funeral leave?	14	93.3	1	6.7

TABLE 18 (Continued)

Question	States Responding Yes		States Responding No	
	Number	Percent	Number	Percent
Do you provide paid jury duty leave?	14	93.3	1	6.7
Do you provide any other types of paid leave?	6	40.0	9	60.0
Do you offer group medical insurance to your employees?	15	100.0	0	-
Do you offer group life insurance?	13	86.7	2	13.3
Do you offer group dental insurance?	4	26.7	11	73.3
Do you offer group visual insurance?	2	13.3	13	86.7
Do you offer any other types of group insurance coverage?	3	20.0	12	80.0
Do you offer employee bonuses?	2	13.3	13	86.7
Do you promote employees automatically upon acquisition of certain educational or experience requirements?	2	13.3	13	86.7

TABLE 19
OUT-OF-STATE BENEFIT SURVEY RESULTS
(Free Response Questions with Limited Response Types)

QUESTION	RESPONSE	ABSOLUTE FREQUENCY	PERCENT RELATIVE FREQUENCY
Generally, how often are your periodic adjustments granted across-the-board?	Every six months	1	8.3
	Every year	11	91.7
	No response	3	-
Generally, how often do your employees become eligible for merit increases?	Every year	12	100.00
	No response	3	-
How many merit increases can a person receive while employed at a particular grade level?	Five	2	20.0
	Six	3	30.0
	Seven	3	30.0
	Eight	1	10.0
	Twelve	1	10.0
	No response	5	-
Of those eligible, what percent of employees are actually granted merit increases?	Five percent	2	25.0
	Thirty percent	1	12.5
	Ninety percent	1	12.5
	Ninety-five percent	1	12.5
	Ninety-eight percent	2	25.0
	Ninety-nine percent	1	12.5
	No response	7	-
How many years of service are required for employees to receive one longevity adjustment?	Five years	3	60.0
	Eight years	1	20.0
	Eleven years	1	20.0
	No response	10	-
What percent of salary is allocated for each longevity adjustment?	One percent	2	50.0
	Two percent	1	25.0
	Three percent	1	25.0
	No response	11	-

TABLE 19 (Continued)

QUESTION	RESPONSE	ABSOLUTE FREQUENCY	PERCENT RELATIVE FREQUENCY
How many paid holidays do you authorize per year?	Eight	1	6.7
	Nine	5	33.3
	Ten	3	20.0
	Ten plus one bi-annually	1	6.7
	Eleven	2	13.3
	Eleven plus one bi-an- nually	1	6.7
	Twelve	2	13.3
How many days paid annual vacation leave do you authorize after one year of service?	Ten	3	20.0
	Twelve	9	60.0
	Thirteen	1	6.7
	Fifteen	2	13.3
How many days paid annual vacation leave do you authorize after five years of service?	Twelve	1	6.7
	Fifteen	13	86.6
	Sixteen	1	6.7
How many days paid annual vacation leave do you authorize after ten years of service?	Fifteen	3	20.0
	Seventeen	3	20.0
	Eighteen	7	46.6
	Twenty	1	6.7
	Twenty-three	1	6.7
How many days paid annual vacation leave do you authorize after fifteen years of service?	Eighteen	3	20.0
	Nineteen	1	6.6
	Twenty	3	20.0
	Twenty-one	6	40.0
	Twenty-three	1	6.7
	Twenty-five	1	6.7
How many days paid annual vacation leave do you author- ize after twenty years of service?	Eighteen	2	13.3
	Nineteen	1	6.7
	Twenty	3	20.0
	Twenty-one	3	20.0
	Twenty-two	1	6.7
	Twenty-four	4	26.6
	Twenty-five	1	6.7

TABLE 19 (Continued)

QUESTION	RESPONSE	ABSOLUTE FREQUENCY	PERCENT RELATIVE FREQUENCY
How many days paid annual vacation leave do you authorize after twenty-five years of service?	Eighteen	2	13.3
	Twenty	3	20.0
	Twenty-one	3	20.0
	Twenty-two	1	6.7
	Twenty-four	3	20.0
	Twenty-five	2	13.3
	Twenty-six	1	6.7
How many days paid annual vacation leave do you author- ize after thirty years of service?	Eighteen	2	13.3
	Twenty	3	20.0
	Twenty-one	3	20.0
	Twenty-two	1	6.7
	Twenty-four	3	20.0
	Twenty-five	2	13.3
	Twenty-six	1	6.7
How many days paid sick leave do you authorize per year?	Twelve	8	53.3
	Thirteen	2	13.3
	Fourteen	1	6.7
	Fifteen	1	6.7
	Eighteen	2	13.3
	Ninety	1	6.7
What percent of accum- ulated unused sick leave is paid upon termination?	Twenty-five percent	1	25.0
	Fifty percent	3	75.0
	No response	11	-

TABLE 20
OUT-OF-STATE BENEFIT SURVEY
MONTHLY HEALTH INSURANCE CONTRIBUTIONS
BY STATE (FAMILY PLAN)

<u>STATE</u>	<u>FISCAL YEAR 1977-1978</u>	<u>FISCAL YEAR 1978-1979</u>
Minnesota	\$91.06	\$102.00
Wisconsin	91.00	91.00
Washington	72.50	72.50
California	66.00	92.00
Nebraska	57.30	67.00
Utah	56.24	56.24
Idaho	46.01	46.01
Oregon	44.00	56.00
Iowa	38.78	46.28
Nevada	36.80	36.80
Kansas	33.72	33.72**
Wyoming	30.00	30.00
North Dakota	25.89	25.89***
South Dakota	22.62	22.62
Colorado	20.00	30.00
Montana*	20.00	30.00
Mean	48.79	53.87
Standard Deviation	23.06	25.90
Standard Error	5.33	

* Montana data are merely presented to illustrate relative ranking and were not calculated into the statistics.

** Kansas is speculating that the state contribution will increase on January 1, 1979 but the amount has not yet been determined.

*** The governor of North Dakota is supporting legislation to be proposed this winter which will require the state to pay for full family coverage.

TABLE 21
OUT-OF-STATE BENEFIT SURVEY
STATE RETIREMENT CONTRIBUTIONS AS A
PERCENT OF SALARY

<u>STATE</u>	<u>FISCAL YEAR 1977-1978</u>	<u>FISCAL YEAR 1978-1979</u>
California	13.50%	13.50%
Wisconsin	11.60	11.60
Colorado	10.64	10.64
Oregon	8.50	8.75
Nevada	8.00	8.00
Idaho	7.50	8.50
Kansas	6.10	6.10
Minnesota	6.00	6.00
Montana*	5.95	6.20
Wyoming	5.57	5.57
Washington	5.51	5.51
Iowa	5.25	5.75
North Dakota	5.12	5.12
South Dakota	5.00	5.00
Utah	5.00	5.00
Nebraska**	4.99	5.07
Mean	7.21	7.34
Standard Deviation	2.73	2.73
Standard Error	0.71	

* Montana data are merely presented to illustrate relative ranking and were not calculated into the statistics.

** Nebraska's contribution varies by salary. The rates given assume an average salary of \$12,000 in FY1977-1978 plus 6.5% expected salary increases for FY1978-1979.

STATE SALARY INCREASES FOR FY 1979

After the mail survey was conducted, phone calls were made to each state to determine what pay increases they planned to grant employees during FY 1979. This information broadly indicates that considering both expected merit and cost of living, Idaho, Minnesota, and California employees will receive smaller percentage increases than Montana employees. North Dakota, Oregon, South Dakota, Utah, Wisconsin, and Kansas employees should fare better than Montana employees.

The remaining states, Colorado, Nebraska, Washington, Wyoming, and Iowa, will probably grant salary increases which are comparable to that of Montana. Pay increases for Nevada's employees had not yet been determined at the time the phone calls were made. Detailed results of these phone inquiries are contained in Table 22.

Expectations of Fiscal Year 1979 Across-the-Board
Salary Increases, Exclusive of Longevity or
Merit Increases

<u>STATE</u>	<u>EXPECTED SALARY INCREASES DURING FISCAL YEAR 1979</u>
California	Employees received no increase on July 1, and there are no current plans for an increase prior to July 1, 1979.
Colorado	Most employees received 5% increases on July 1. Psychologists received 2.5% increases. Accountants received 7.3% increases. Employment Security Interviewers and Managers received 7.4% increases. Lawyers received 10.2% increases. Fish and Game Biologists received 7.3% increases. Civil Engineers received 2.6% increases.
Idaho	Most employees received 5% salary increases on July 1.
Iowa	Most employees whose salaries exceeded \$13,000 annually received 5% increases on July 1, while the employees whose salaries were less than \$13,000 annually received 6% increases on July 1.
Kansas	All employees received 7.25% salary increases.
Minnesota	Between July 1, 1978, and July 1, 1979, employees will receive \$416 in addition to their fiscal year 1978 annual salaries.
Montana	Between July 1, 1978, and July 1, 1979, employees will receive \$458 in addition to their fiscal year 1978 annual salaries.
Nebraska	Employees received 5% salary increases on July 1, and will receive 1.5% additional salary increases on January 1, 1979.
Nevada	There have been no set salary increases for fiscal year 1979. The Nevada legislature meets in January and it is speculated that they will grant a cost-of-living increase which will be retro-active to January 1, 1978.
North Dakota	Most employees received 6.5% salary increases on July 1. Computer Programmers and Accountants received 10.1% increases. Education Program Consultants received 1.4% increases. Fish and Game Biologists received 11% increases.

TABLE 22 (Continued)

<u>STATE</u>	<u>EXPECTED SALARY INCREASES DURING FISCAL YEAR 1979</u>
Oregon	Employees received 5% salary increases on December 1, 1978.
South Dakota	Fiscal year 1979 salaries are 3% and \$603 greater than fiscal year 1978 salaries.
Utah	Employees received 6.6% salary increases on July 1.
Washington	Employees received 5% salary increases on July 1.
Wisconsin	Employees received 7.5% salary increases on July 1.
Wyoming	Employees received 2% salary increases on July 1.

COST OF LIVING AND PER CAPITA INCOME COMPARISONS

Earlier in this report, it was mentioned that State of Montana salaries at the upper grade levels have not kept pace with nationwide Consumer Prices (see charts 3, 4 and 5). The previous section has clearly shown that Montana's maximum and average salaries at grades 14 and above are significantly below the averages of the 15 states surveyed. This section will attempt to combine both concepts and compare Montana State salaries and costs of living in Montana with salaries in the survey states and their costs of living.

Unfortunately, the Consumer Price Index (CPI) is a nationwide measure of price changes and, as such, it is heavily weighted by prices of goods and services purchased in our nation's larger metropolitan areas. In addition, there are no consistent and reliable statistics available which compare prices among states. There are, however, a couple of statistics available which shed some light on this issue. The first of these is a city-by-city comparison of living costs which is prepared quarterly by the American Chamber of Commerce Researchers Association (ACCRA). Personnel from local volunteering chambers of commerce collect the cost of living data by pricing specific and standardized market basket items which are categorized as food, housing, utilities, transportation, health or miscellaneous items. Based upon the prices obtained, an index is assigned to each market category for each of the participating cities. An index of 100 would represent the average price in all participating cities for a given category of items. Indices below 100 mean that prices are below average, while those above 100 indicate the opposite. Each city's index for all items is then formulated by computing a weighted average of the category indices. The weights assigned to each component are presumed to have been determined by ACCRA's estimates of average consumer spending patterns.

Before presenting the comparable ACCRA statistics, which may be relevant to this survey, it is important for the reader to be aware of some pertinent known and unknown characteristics of ACCRA as opposed to the characteristics of the CPI whose reputation in measuring prices is much more deep-rooted. The things to be aware of are listed as follows:

1. ACCRA's list of items are categorized a little differently than CPI items and, as such, it is difficult to ascertain whether or not ACCRA is weighing its items to appropriately represent consumer expenditure budgets. In addition, such items as apparel, household furnishings, automobiles, automobile parts and services, and home maintenance represent a significant part of the CPI budget, but are not even priced by ACCRA.
2. The United States Bureau of Labor Statistics (BLS) in formulating the CPI, utilizes statistically reliable techniques for selecting the outlets (stores, etc.) to be used in gathering prices. It is not known how the various local chamber of commerce researchers select their sample of outlets.
3. BLS also continually conducts relevant research studies in order to properly evaluate quality differences in some of the more durable items priced. It is not known if ACCRA allows for quality distinctions, but it is an important item to recognize since, for example, the average home in Palm Springs may or may not be of the same quality as the average home in Omaha.

4. Finally, because cities volunteer to compare their prices with those of other volunteering cities, prices for some states may not be adequately represented. It is unlikely, for instance, that prices in Kennewick, Washington could depict prices for that entire state.

Despite these potential shortcomings, the ACCRA statistics are the best available for making living cost comparisons among our selected survey states. An analysis of the ACCRA statistics that are available for our purposes are presented in Table 23.

TABLE 23
ANALYSIS OF ACCRA COMPOSITE INDICES

<u>STATE</u>	<u>ANALYSIS OF NUMBER OF CITIES REPORTING</u>	<u>AVERAGE STATE INDEX OF CITIES REPORTING</u>	<u>INDEX OF STATE CAPITAL (if reported)</u>
California	12	108.4	98.0
Colorado	3	95.7	104.7
Idaho	2	95.5	99.8
Iowa	5	101.4	-
Kansas	3	100.9	-
Minnesota	3	100.1	-
Nebraska	5	91.1	88.5
Nevada	1	121.5	-
North Dakota	1	110.4	-
Oregon	2	107.2	-
South Dakota	3	90.5	-
Utah	3	98.2	101.1
Washington	1	112.3	-
Wisconsin	10	97.4	100.6
Wyoming	3	102.5	91.7
Average of Survey States	-	102.2	97.8
Montana	4	100.9	101.5
% Difference Survey States vs. Montana	-	1.3%	-3.6%

The ACCRA results are mixed. Montana's average index for second quarter 1978, which is the time period in which this salary survey was conducted, is slightly lower than the average index for the 15 survey states. The index for Helena, however, is greater than the average index for the reporting survey state capitals. Again, it should be mentioned that these results should be taken with a grain of salt, but they indicate that prices in Helena and in Montana do not differ significantly from those in our selected survey states; at least not to the extent that Montana salaries above grade 14 differ from salaries of comparable classes in those states.

Another statistic which could be used to compare the value of money in Montana with that in our 15 survey states, is per capita income. To a large extent, per capita income is the product of a state's productivity in relation to the number of its citizens and may indicate that its citizens will enjoy more goods and services if they are more productive. Prices do not necessarily increase at the same rate as per capita income, but they are influenced by per capita income because of the supply/demand reaction which results from the increasing availability of money. Thus, by making a per capita income comparison, we can get a second opinion on the relationship of Montana prices to those of our selected survey states.

Per capita income is the result of dividing personal income by population. The U.S. Department of Commerce publishes both per capita and personal income by states, but at publishing time, these statistics were not current enough for our use. Business Week magazine also publishes state personal income statistics which correlate closely with the Department of Commerce figures, but are more current. The U.S. Bureau of the Census attempts to keep current its estimates of population by state. Population estimates were not available for 1978, but were estimated by adding the average annual percent change since 1970 to the 1977 estimates. Per capita income for a state during a given fiscal year was calculated by dividing that state's personal income, as published in Business Week for the fiscal year, by the state's population estimate for that fiscal year (average of the two respective calendar year estimates).

Tables 24 and 25 depict per capita income data for Montana and for the United States. Similar tables were developed for each of the survey states and are presented in the Appendix IV of this report.

TABLE 24
PER CAPITA INCOME DATA
MONTANA

<u>FISCAL YEAR</u>	<u>PERSONAL INCOME (\$1,000,000)</u>	<u>INDEX (BASE = CY 1975)</u>	<u>PER CAPITA INCOME (\$)</u>	<u>INDEX (BASE = CY 1975)</u>	<u>POPULATION (AVERAGE ESTIMATE) (1,000)</u>
1975	3,694	92.5	4,992	93.3	740
1976	4,370	109.5	5,827	108.9	750
1977	4,559	114.2	6,015	112.4	758
1978	5,428	136.0	7,072	132.2	768

TABLE 25
PER CAPITA INCOME DATA
U.S. TOTALS

<u>FISCAL YEAR</u>	<u>PERSONAL INCOME (\$1,000,000)</u>	<u>INDEX (BASE = CY 1975)</u>	<u>PER CAPITA INCOME (\$)</u>	<u>INDEX (BASE = CY 1975)</u>	<u>POPULATION (AVERAGE ESTIMATE) (1,000)</u>
1975	1,195,654	95.4	5,634	95.8	212,210
1976	1,326,260	105.9	6,202	105.5	213,846
1977	1,445,927	115.4	6,704	114.0	215,668
1978	1,612,948	128.7	7,409	126.0	217,695

Table 26 presents the per capita income data for the 15 survey states combined and were calculated in the same manner as average state salaries in the survey. In other words, each state influenced the results in an equal manner and the larger states, such as California, did not dominate the averages.

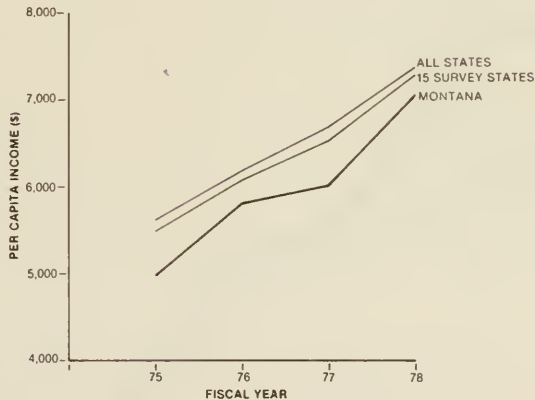
TABLE 26
PER CAPITA INCOME DATA
FIFTEEN SURVEY STATES COMBINED

<u>FISCAL YEAR</u>	<u>PER CAPITA INCOME (\$)</u>	<u>INDEX (BASE = CY 1975)</u>
1975	5,497	94.8
1976	6,103	105.2
1977	6,530	112.6
1978	7,284	125.6

The per capita income comparisons are presented in Table 27 and in Chart 6. Per capita income for the survey states exceeds Montana's but only by 3%. Most of the salary discrepancies reported for Grades 14 and above are much greater than this 3%.

TABLE 27
PER CAPITA INCOME COMPARISONS

AREA	FY 1978 AVERAGE PER CAPITA INCOME (\$)	FY 1978 INDEX (BASE = CY 1975)
U.S.	7,409	126.0
MONTANA	7,072	132.2
SURVEY STATES	7,284	125.6
% DIFFERENCE MONTANA vs. SURVEY STATES	3.0%	5.0%



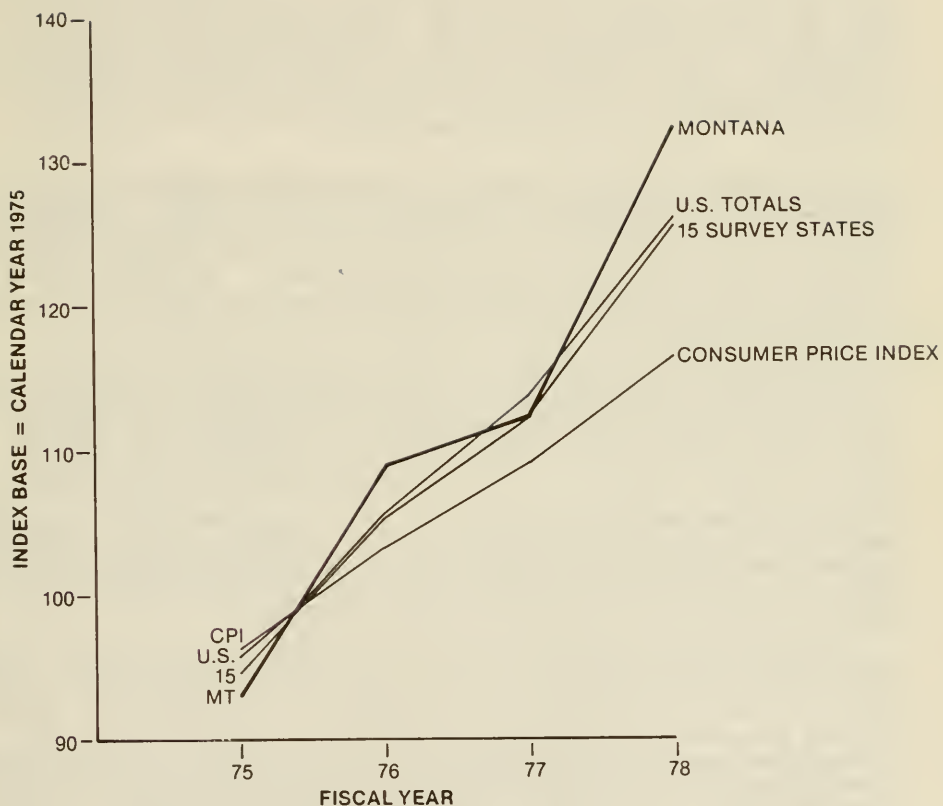
PER CAPITA INCOME COMPARISONS

CHART 6

Indices of per capita income were calculated in Tables 24 through 27 to emphasize the relatively strong recent growth in Montana's per capita income. Presumably, if the growth rate between Fiscal Year 1977 to Fiscal Year 1978 is continued into Fiscal Year 1979, Montana's per capita income will probably equal and possibly surpass that of the survey states.

From the statistics that are most currently available on statewide personal income, it would appear that Montana's strong per capita growth rate is continuing, since Montana's personal income for the first eight months of 1978 has grown by 24.4% over the first eight months of 1977. Only one other state, Alaska at a 33.3% growth rate, fared better during this same time span.

Chart 7 illustrates Montana's per capita income growth as compared to the survey states.



GENERAL ISSUES

The significance of employee pay as a policy issue in Montana should be evident when it is realized that State government spent over 233 million dollars for employee compensation in FY1978. The salary levels of employees are legitimate areas of study in order to assure that the tax dollars used for salaries are utilized effectively.

One deficiency in the current compensation program is the lack of incentives available for improving employee performance. The current pay program requires that employees be advanced one step in their pay grade each year regardless of their productivity and/or performance. Section 59-916 R.C.M. 1947 allows no discretion to deny the increase. There is a choice between continuing the system which rewards length of service and makes no distinction among employees based on performance and a system which would permit the granting of pay increases on the basis of individual performance.

Retaining the present system would avoid the problems of making performance distinctions among employees which may be difficult to defend. The present system of granting automatic step increases is easy to administer because it requires little time and avoids the inevitable conflicts between supervisors and the employees who did not receive the merit increase. The current system, however, does not provide incentives to either motivate employees to top performance or to reinforce employees to sustain their performance.

In contrast, adopting a merit increase system giving agencies discretion to reward employees in proportion to their contributions would increase the value of the funds spent for salaries by creating an incentive. Employees would be able to see a direct relationship between their performance and their pay. The typical employee would have an incentive to improve performance in order to obtain the merit increase. The ending of the practice of automatically advancing all employees to step 13 of the salary range regardless of performance should also have a positive motivation value. Presently the state does not project concern over employee performance because everyone is treated the same. There is no incentive to work hard for the state when the marginal performer gets the same reward as does the productive employee.

A step advancement system based on merit is not without its problems. Great supervisory care is required to be paid to performance appraisals. Employees who do not receive the higher step increases will be dissatisfied. Strong support is needed to ensure that supervisors make appropriate performance distinctions among employees that can be used as a basis for increasing pay. Some employees will view the merit program as taking away a benefit to which they are entitled. In addition, unions traditionally oppose merit increase programs because they contend that objective performance evaluations are difficult if not impossible to make fairly. Unions can be expected to either oppose the program or, at the least, regard it with suspicion.

Recommendation:

- . The state should create a program for employees in occupations that allow individual initiative, to receive step increases based on merit. This program should replace the automatic step increases granted to all employees. The merit increases should reward performance rather than length of service with the state. The program should cover employees in the proposed professional and managerial pay plans. Implementation of this recommendation will require that the state develop an effective performance evaluation program.
- . The merit program perhaps should not be applied to employees in the blue collar plan, teacher salary plan and retail clerks pay plan. Many of the employees in these occupations are represented by unions. It is doubtful that a merit increase program can be implemented for these occupations without collective bargaining over the policy and procedures governing the pay program.
- . The state should adopt a budget technique that would limit the number of employees eligible for a merit increase. With no budget limitations there will be considerable pressure on managers to grant nearly every employee a merit increase.
- . The authorization of a merit program should reduce the pressure to improperly use the classification plan as a salary system. It appears, from some of the reclassification requests received by the Personnel Division, that agencies are attempting to promote some individuals with little change in duties as a way to reward them for good performance in their current job. While the motives of the agencies are laudatory, the practice if allowed, can seriously distort the similar pay for similar work relationships in the classification plan.

We believe that, as a general rule, separate pay systems should be created for different occupations only when there are significant reasons for special pay policies. Separate pay systems can reduce the effectiveness of a uniform pay policy and, if too many are established, may threaten the ability of the State to provide similar pay for similar work. In spite of this concern, we believe that there is a need for separate pay schedules and that they can serve a useful purpose if carefully constructed. Currently, the State has established four pay schedules which are separate from the uniform State pay plan.

The present Blue Collar plan covers over 780 employees in the trades and crafts and was established through collective bargaining. The retail clerks pay plan and the teacher salary plan(s) are also established through collective bargaining. The latter was made necessary by the fact that teachers in the institutions are legally exempt from the classification and pay act. Practically speaking, there are certain categories of employees which because of collective bargaining or other reasons makes it desirable to have the ability to establish a special pay schedule. As an example, teachers and blue collar workers are, in the other economic sectors, compensated differently than would be allowed in the State pay plan. Teachers in public schools receive annual

raises based on seniority and academic achievement. Blue collar employees, on the other hand, receive the prevailing rate negotiated for the particular craft or trade in a community. Usually all journeymen blue collar workers receive the same rate of pay regardless of their years of experience. When the State pays employees differently from their counterparts in other sectors of the labor market, it is only natural that the pay system becomes a source of strife.

Another problem area faced by the State is physicians. Physicians were classified in the State pay system on the basis of their duties and responsibilities and were assigned a pay grade in the same manner as other employees. The problem with the conventional approach was that the State pay grades are inadequate to attract fully qualified physicians. The lack of competitiveness created a need for a special pay schedule in order to keep the state hospitals adequately staffed.

Recommendation:

In addition to the separate pay schedules that have already been established, we anticipate the need for establishing two more separate schedules; one for highly qualified professionals and the other for managers. A separate schedule for highly qualified professionals such as Scientists, Engineers and Attorneys may be a solution to recruitment and retention problems and a way to rank and pay these positions on the basis of personal competence. The Federal Job Evaluation and Pay Review Task Force, in its Final Report submitted under the Job Evaluation Policy Act of 1970 (Public Law 91-216), developed model evaluation systems and pay structures for highly qualified professionals and for supervisors and managers. We believe that these systems can be modified and appropriately applied to State government. The proposed systems have four broad levels of competence which relate to an employee's ability and qualifications. The employee would be able to be promoted when his/her abilities and qualifications increase. Once placed in a salary range, the individual's advancement would be on merit alone.

The success or failure of many State programs depends on the competence, performance and leadership of employees in professional and/or management positions. To the extent that pay is important for the morale and motivation of employees, it can be shown that professional and management employees in the upper grades have not fared well. The issue of inadequate pay is significant. Low pay can cripple the ability of the State to hire, keep and motivate the experienced talent necessary for the success of critical programs.

The legislature should express a clear policy for compensating employees. A clear policy is important to guide the executive branch when controlling the actual expenditure of funds for salaries. A compensation policy is not totally arrived at in a voluntary manner, as the available revenues and the need to hire and keep qualified employees must in some manner be balanced. However, without a compensation policy, inconsistent decisions will occur and the State will not develop an effective pay program.

Two options the legislature has in developing a compensation policy might be described as follows:

The legislature might decide to pay employees based on what can be afforded after other budget priorities are funded. Establishing a salary policy last and using the funds that are residual can create significant problems. This approach ignores the impact State government has on the labor market in Montana. Currently, it appears that the State pays more than the going rate for some job levels and less for others. The residual approach would tend to continue our current problems and perhaps make them worse. The State should not ignore the general wage levels paid by other employers. Obviously, the ability to pay or, conversely, inability to pay, will continue to control the final pay policy for public employees. However, this fact does not preclude the legislature from making pay adjustments after considering the impact State salaries have on the labor market.

A preferred approach would be to establish a salary policy which recognizes that the quality of service to the public is related to the morale and productivity of employees. A policy of comparability where the state attempts to pay at or near the labor market would be most desirable. This approach would avoid the problem of the State paying more for some categories of jobs than the private sector and yet allow the State to compete equally for qualified employees.

Recommendation:

We recommend the following policy be adopted for determining pay increases for state employees:

The salary and benefits paid by the State to employees are for the purpose of attracting and retaining competent and qualified employees to perform the services the State is required to provide its citizens. The State will endeavor to pay salaries and benefits on the basis of internal equity and competitiveness to external labor markets when fiscally able.

APPENDIX I
KEY CLASS DESCRIPTIONS

VARIOUS TYPES OF SUPERVISION RECEIVED

The first sentence of each of our class specifications contains one phrase which illustrates the type of supervision received. The five phrases which we use are described below.

"Immediate supervision" indicates the greatest amount of supervision and control from above, the least personal independence of action, and the least breadth of matters upon which the employee makes decisions. The supervisor has not only the responsibility for assignments, flow of work, production, discipline and other management functions, but also the responsibility for proper instructions as to objectives, plans, policies, procedures and office methods.

The employee under "close supervision" has received exposure to the work of a given class. The employee is familiar with the routine and with the methods or procedures affecting the particular position. It is presumed that the employee will be able to recognize instances which are out of the ordinary and which do not fall within existing instructions. The person is then expected to seek advice and further instructions. Reviews and checks of the employee's work are applied only to the extent sufficient to keep the supervisor aware of progress and to insure that instructions are being followed.

"General supervision" indicates that the control from above is not a particularized supervision, but a general control, not intimately bearing upon the details of the employee's work. The assignments and objectives are prescribed for the employee, but the person's work methods are seldom supervised, reviewed or controlled while the work is in process. The employee is expected to plan the sequence of detailed steps by using experienced judgement and discretion. The employee is expected to solve through initiative, most problems of detail that come up in the course of the work. There is substantive and personal responsibility for results, circumscribed by the scope of the assignments.

"General guidance and direction" indicates a general and somewhat removed control from above which only manifests itself directly on limited occasions. Such phases as planning and organizing the details of work and deciding the methods to produce a given result are completely in the hands of the employee. The employee is expected to carry out not only all the ordinary affairs of the position, but to meet unusual situations and provide proper interpretations without advice or instruction other than that afforded by the general plans, regulations and purposes, applicable to all work in the unit, section, division or department.

"Broad policy guidance and direction" is characterized by a heavy personal responsibility on the part of the employee and broad authority for accomplishing the mission, as well as making policy and developing plans for carrying out work programs. There is practically complete freedom and relative infrequency of reference to others for advice and instructions, even when unusual problems are involved. These are the highest level positions, which normally report to a Board, Commission or a Department Director.

ORGANIZATIONAL STRUCTURE

State of Montana Executive Branch

In an effort to simplify job matching for upper-level jobs, the organizational structure of our State Executive Branch is briefly described below.

The Executive Branch is divided into nineteen departments. Heads of Departments are called Directors and are appointed by the Governor upon State Senate approval. Some large departments employ Deputy Directors as assistants to the Director for managing internal departmental affairs.

Departments are next segmented into Divisions which are headed by Administrators.

Divisions may be further divided into Bureaus which are headed by Chiefs.

And finally, Bureaus may be branched into Sections which are headed by Supervisors.

All Bureau Chiefs, for example, are not necessarily paid at the same salary range. Specific grade levels are determined by the largeness, complexity and diversity of the particular Bureaus. This illustration also holds true for Deputy Directors of Departments, Administrators of Divisions and Section Supervisors.



STATE OF MONTANA
DEPARTMENT OF ADMINISTRATION
PERSONNEL DIVISION

CLASS SPECIFICATIONS

CLASS CODE	018005
GRADE	12
LAST UPDATED	3-14-75

OCCUPATIONAL
GROUP

Surveyors

MONTANA CLASSIFICATION TITLE

Engineering Technician III

DESCRIPTION OF WORK

GENERAL DUTIES: Performs a variety of complex construction inspection duties and sub-professional civil engineering work of considerable difficulty.

SUPERVISION RECEIVED: Works under general supervision of an administrative superior.

SUPERVISION EXERCISED: Exercises supervision over personnel as assigned.

EXAMPLES OF DUTIES

Performs complex inspection of highway and bridge construction and materials used; weighing and testing of all construction materials; methods of placement and finished forms; supervises a survey crew; keeps field notes and reduces them to compute final quantities and estimates; makes final review of final estimates and field notes for structures; inspects utility activities on highway right-of-way for compliance to State and federal regulations; coordinates utility relocations; processes utility agreement billings for payments and utility encroachment applications; may provide relocation assistance to property owners; performs related work as required.

MINIMUM QUALIFICATIONS

KNOWLEDGES: Thorough knowledge of engineering principles and methods as related to highway construction projects.

SPECIAL SKILLS: None.

ABILITIES: Ability to supervise; to maintain effective working relationships; to follow instructions; to perform basic mathematical computations; to perform light manual labor.

EDUCATION: High school graduation.

EXPERIENCE: Five years of progressively responsible sub-professional engineering work.

OR

Any equivalent combination of education and experience.

USER
AGENCIES

5401

All

*

As Noted Below

All Except Those Noted Below

NOTE Duties described above are not necessarily all inclusive for this class.

TABLE AI-4
EXAMPLE KEY CLASS DESCRIPTION

Engineering Technician III

Class Code: 018005

General Description:

Performs, under general supervision, a variety of complex construction inspection duties and considerably difficult sub-professional civil engineering duties. Supervises personnel as assigned. In contrast to lower level Engineering Technicians, this class has party chief responsibilities for survey crews.

Example of Duties:

Inspects complex highway and bridge construction. Weighs, tests and inspects construction materials. Supervises a survey crew. Keeps and reduces field notes to compute quantities and estimates. Inspects utility activities on highway right-of-way for compliance with state and federal regulations. Coordinates utility relocations. Processes utility billings and encroachment applications. May provide relocation assistance to property owners.

Desired Qualifications:

Applicants should have had five years of progressively responsible sub-professional engineering experience and should have completed high school.

Your Comparable Title: _____

Number of Employees in Title: _____

Annual Salary Range: Minimum \$ _____ Maximum \$ _____

Weighted Average Salary: \$ _____

If your description differs significantly from ours, please explain:

APPENDIX II
QUESTIONNAIRE DESIGN

TABLE AII-1
SALARY AND BENEFIT SURVEY QUESTIONS

General Questions on Compensation Policy:

1. Does your organization periodically adjust salaries (across-the-board) to reflect changes in costs of living? _____yes _____no

If your answer is yes, are these adjustments related to changes in rates of inflation? _____yes _____no

How often are these adjustments made? _____

Comments: _____

2. Are salary increases based on merit? _____yes _____no

If your answer is yes, how often is an employee eligible for a merit increase? _____

What percentage are actually granted merit increases? _____%

What is the maximum number of merit increases a person can receive while employed at a particular grade level? _____

Comments: _____

3. Are longevity pay increases granted to your employees? _____yes _____no

If your answer is yes, please explain your longevity system: _____

4. How many paid holidays are authorized per year? _____

Comments: _____

TABLE AII-1 (Continued)

5. How many days paid vacation leave can an employee earn per year, after he has been continuously employed for:

1 year _____
 5 years _____
 10 years _____
 15 years _____
 20 years _____
 25 years _____
 30+ years _____

Comments: _____

6. Upon termination, is an employee paid for unused vacation leave?
 _____yes _____no

If your answer is yes, for what percent of the accumulated leave is an employee paid? _____%

Comments: _____

7. Is sick leave paid to your employees? _____yes _____no

If your answer is yes, how many days can an employee earn annually? _____

Comments: _____

8. Is unused sick leave paid upon termination? _____yes _____no

If your answer is yes, for what percent of the accumulated sick leave days is an employee paid? _____%

Comments: _____

9. Are other paid leave opportunities available to your employees? ____yes ____no

If your answer is yes, which of the following is available?

_____ Educational Leave

_____ Military Leave

_____ Funeral Leave

_____ Jury Duty Leave

_____ Other

Comments: _____

10. Which of the following group insurance plans are available to your employees?

_____ Medical

_____ Life

_____ Dental

_____ Visual

_____ Other

If any of the above are checked, what is the total contribution for all plans made per employee per month?

\$ _____ or _____ % of salary; or entire cost employee only

\$ _____ , entire cost employee and family \$ _____

Comments: _____

11. What percent of an employee's salary is paid by your organization toward retirement plan(s)? _____ %

Comments: _____

12. Does your organization offer employee bonuses? _____yes _____no

If your answer is yes, approximately what percent of total payroll does your organization expend toward such programs?

Comments: _____

13. Are employees promoted upon the acquisition of experience or educational requirements, even though a vacancy does not exist? _____yes _____no

If your answer is yes, please explain. _____

APPENDIX III
SUPPLEMENTARY ANALYSES

- a. U.S. Civil Service Commission
FY-78 State Government Salary Survey
- b. U.S. Civil Service Commission
FY-79 State Government Salary Survey
- c. Hay Associates FY-78 Salary Survey of
State Governments
- d. FY-78 Wyoming Salary Survey
- e. Assembly of Governmental Employees: A Study
of State Government Employee Benefits: FY-78

U.S. CIVIL SERVICE COMMISSION
FY-78 STATE GOVERNMENT SALARY SURVEY

The U.S. Civil Service Commission annually surveys minimum and maximum salaries which are paid by state governments to persons employed in 104 occupational classifications. Montana responded to this survey with 88 appropriate job matches.

Table AIII-1 distributes these job matches according to their grade level as established by the Montana Classification and Pay Plan. Column 3 of the Table depicts the numbers of people that Montana employs in those matched classifications, while the next column represents column 3 as a percent of the total numbers of people employed in Montana at a particular grade level.

For each class surveyed, the Civil Service Commission published mean minimum and mean maximum salaries. Because this survey was designed with all states in mind it may not represent a good cross-section of Montana grade levels. It was necessary to weigh and average the published mean salaries according to their proportion of Montana employment covered at the respective grade levels (percent representation is indicated in the third column of Table AIII-1). These weighted averages (minimum and maximum) are produced in the last two columns of Table AIII-1.

Because the survey does not provide adequate cross-sections of most Montana grade levels, the results may indicate only trends in Montana's salary policy. For instance, Montana's minimum salaries consistently fared better than the maximum salaries; therefore, the range may not be wide enough. In addition, Montana does not appear to be providing competitive salaries at grade 9 and at grades 15 through 19.

TABLE AIII-1
U.S. CIVIL SERVICE FY-1978 STATE SALARY SURVEY SUMMARY

GRADE	NO. OF CLASSES SURVEYED	MONTANA EMPLOYMENT IN SURVEY CLASSES	PERCENT REPRESENTATION	MONTANA'S PERCENT ABOVE (OR BELOW) AVERAGE MINIMUM	MONTANA'S PERCENT ABOVE (OR BELOW) AVERAGE MAXIMUM
6	1	13	0.8	3.5	0.0
9	2	183	14.4	(2.9)	(7.1)
10	3	71	6.9	1.4	1.4
11	14	305	28.0	8.7	6.6
12	7	73	6.3	9.2	6.4
13	12	76	6.7	1.5	(1.8)
14	13	103	14.6	4.3	(0.1)
15	11	51	8.9	(3.3)	(8.8)
16	6	27	10.3	(13.4)	(19.4)
17	8	11	5.3	(10.0)	(14.7)
18	6	6	6.7	(7.9)	(12.8)
19	1	1	3.0	(21.6)	(20.0)
21	1	2	28.6	23.4	8.9
22	1	11	64.7	5.9	(7.8)
23	1	12	80.0	5.9	(7.0)
25	1	2	100.0	13.1	(1.2)

U.S. CIVIL SERVICE COMMISSION
FY-1979 STATE GOVERNMENT SALARY SURVEY

Following is an analysis of the results of the FY-1979 U.S. Civil Service Salary Survey.

Montana minimum salaries fared better than the maximum salaries. Lower grade level salaries fared better than those at the upper grades. Pay problems are indicated at grades 16 and above.

TABLE AIII-2
U.S. CIVIL SERVICE FY-1979 STATE SALARY SURVEY SUMMARY

GRADE	NO. OF CLASSES SURVEYED	MONTANA EMPLOYMENT IN SURVEY CLASSES	PERCENT REPRESENTATION	MONTANA'S PERCENT ABOVE (OR BELOW) AVERAGE MINIMUM	MONTANA'S PERCENT ABOVE (OR BELOW) AVERAGE MAXIMUM
6	1	13	0.8	6.0	2.5
9	2	310	24.2	4.2	1.9
10	2	25	2.5	(7.7)	(10.4)
11	15	402	36.9	10.5	7.3
12	9	121	10.4	6.0	2.9
13	12	83	7.3	0.9	(2.7)
14	14	118	16.7	2.8	(1.7)
15	11	68	11.9	(3.6)	(9.0)
16	6	26	9.9	(15.4)	(21.2)
17	10	16	7.7	(6.2)	(11.3)
18	7	7	7.9	(9.8)	(14.0)
19	1	1	3.0	(23.6)	(21.7)
20	1	1	6.7	(3.5)	(9.5)
21	1	2	28.6	20.1	7.8
22	1	11	64.7	1.9	(10.3)
23	2	12	80.0	2.5	(10.6)
25	1	2	100.0	10.4	(1.0)

TABLE AIII-3
U.S. CIVIL SERVICE COMMISSION
STATE SALARY SURVEY
FY-1979

GRADE	CLASSIFICATION	PERCENT OF STATES RANKING BELOW MONTANA	
		MINIMUM SALARIES	MAXIMUM SALARIES
6	Social Service Aide	66.0	60.0
9	Correctional Officer I	47.2	47.2
9	Eligibility Technician	80.4	71.7
	Grade 9 Average	63.8	59.4
10	Compliance Officer I	46.7	37.8
10	Eligibility Technician Supervisor	27.3	15.9
	Grade 10 Average	37.0	26.8
11	Employment Interviewer II	90.6	83.0
11	Social Worker I	84.6	80.8
11	Statistician	78.4	66.7
11	Registered Nurse	77.4	67.9
11	Accountant I	75.5	60.4
11	Computer Programmer I	73.6	54.7
11	Chemist I	73.6	60.4
11	Fish and Game Warden I	73.5	63.3
11	Forester I	71.7	50.0
11	Claims Examiner I	66.7	62.7
11	Parole and Probation Officer I	66.0	49.1
11	Rehabilitation Counselor I	56.6	47.2
11	Correctional Sergeant	55.8	44.2
11	Economist I	41.0	30.8
11	State Planner I	34.6	32.7
	Grade 11 Average	68.0	53.8
12	Sanitarian I	90.4	88.5
12	Job Analyst I	88.7	84.9
12	Professional Nurse I	85.7	77.6
12	Employment Counselor I	85.4	71.7
12	Air Analyst I or Water Qual. Spec. I	79.2	77.1
12	Librarian I	78.8	69.7
12	Purchasing Agent II	76.9	73.1
12	Civil Engineer I	43.4	35.8
12	Compliance Officer III	37.5	30.0
	Grade 12 Average	74.0	67.6

TABLE AIII-3 (Continued)

GRADE	CLASSIFICATION	PERCENT OF STATES RANKING BELOW MONTANA	
		MINIMUM SALARIES	MAXIMUM SALARIES
13	Physical Therapist I	90.6	92.5
13	Social Worker III	82.0	76.0
13	Sanitary Engineer I	76.3	71.1
13	Sanitarian II	75.0	67.3
13	Civil Defense Officer I	65.0	57.5
13	Management Analyst I	56.2	47.9
13	Social Worker Supervisor I	55.8	46.2
13	Compliance Officer IV	50.0	43.2
13	Chemist III	46.2	42.3
13	Parole and Probation Officer III	40.4	36.5
13	Public Health Nutritionist I	36.0	26.0
13	Programmer/Analyst I	34.0	28.3
	Grade 13 Average	59.0	52.9
14	Professional Nurse III	92.5	84.9
14	Employment Manager I	80.8	69.2
14	Fish and Game Warden Supervisor I	77.1	72.9
14	Physical Therapist II	84.8	67.4
14	Forester IV	66.7	44.4
14	Statistician IV	57.7	51.9
14	Accountant Supervisor I	55.8	38.5
14	Purchasing Agent V	48.0	35.4
14	Auditor IV	44.2	30.8
14	Computer Programmer III	34.8	15.2
14	Hearings Officer II	34.0	24.5
14	Job Analyst III	32.7	21.2
14	Civil Engineer III	18.9	18.9
14	Chief, Surplus Property Bureau	18.8	14.6
	Grade 14 Average	53.3	42.1
15	Librarian IV	84.6	78.8
15	Physical Therapy Supervisor	74.4	59.0
15	Air Analyst or Water Qual. Spec. III	68.9	53.3
15	Sanitary Engineer III	48.4	45.2
15	Management Analyst III	47.8	41.3
15	Psychologist III	42.0	34.0
15	Economist IV	37.8	27.0
15	State Planner V	36.5	23.1
15	Sanitarian IV	32.7	14.3
15	Programmer/Analyst III	28.8	17.3
15	Civil Defense Officer II	69.6	56.5
	Grade 15 Average	51.9	40.9
16	Fish and Game Warden Supervisor II	43.8	25.0
16	Chief, Safety & Health Bureau	36.6	26.9
16	Chief, Statistics & Research Bureau	34.0	21.3
16	Civil Engineer V	20.0	8.0
16	Sanitary Engineer IV	12.5	6.2
16	Data Processing Manager II	11.5	11.5
	Grade 16 Average	26.4	16.5

TABLE AIII-3 (Continued)

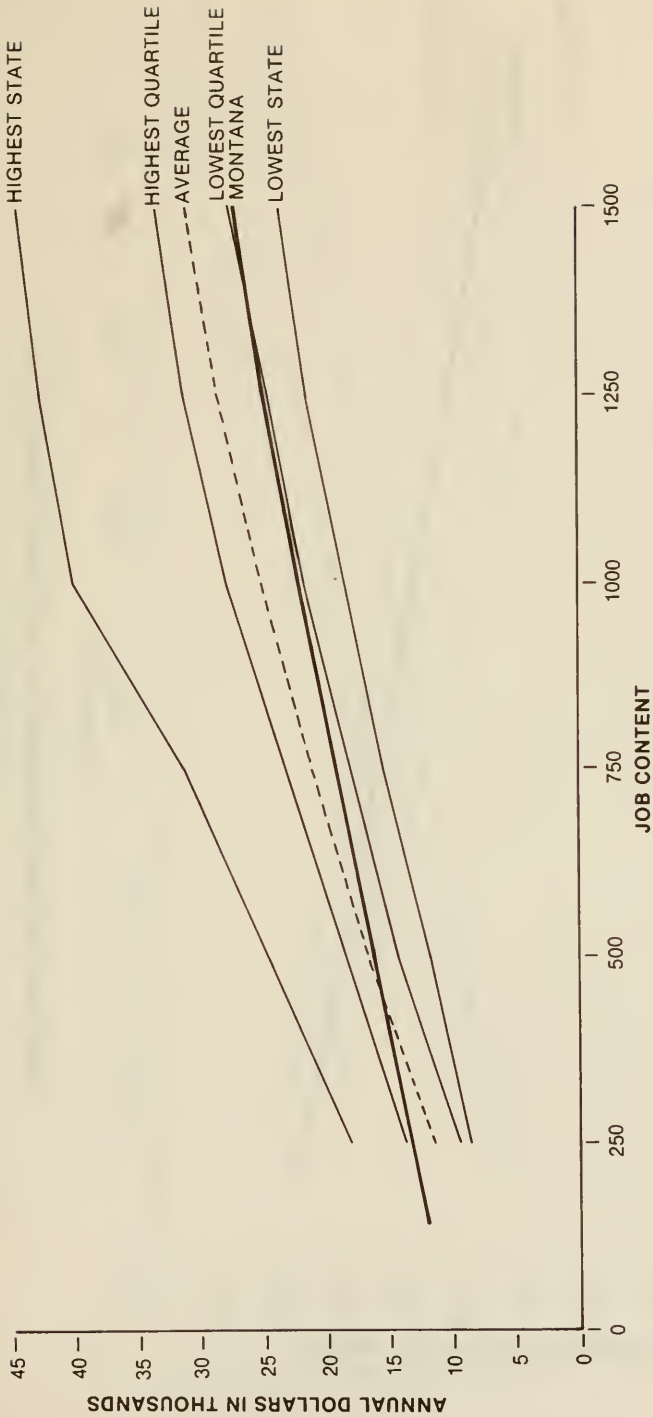
GRADE	CLASSIFICATION	PERCENT OF STATES RANKING BELOW MONTANA	
		MINIMUM SALARIES	MAXIMUM SALARIES
17	Nursing Services Director II	88.2	68.6
17	Chief, Nursing Bureau	64.0	28.0
17	Supervisor Benefits Section	61.5	32.7
17	Chief, Rehabilitative Serv. Bureau	17.3	7.7
17	Chief, Fiscal Bureau	50.0	26.0
17	Chief, Occupational Health Bureau	38.7	19.4
17	Chief, Parole & Probation Bureau	31.8	22.7
17	Administrator, Purchasing Division	30.0	14.0
17	Chief, Social Services Bureau	16.7	4.2
17	Resident Physician	7.7	3.8
	Grade 17 Average	40.6	22.7
18	Hospital Administrator I	58.8	26.5
18	Administrator, Research Division	56.8	32.4
18	Administrator, Planning Division	20.4	13.6
18	State Librarian	38.6	36.4
18	Administrator, Forestry Division	36.4	36.4
18	Chief, Employment Services Bureau	34.0	9.4
18	Administrator, Laboratory Division	32.7	20.4
	Grade 18 Average	39.6	25.0
19	Administrator, Personnel Division	13.5	13.5
20	Hospital Administrator II	67.9	42.9
20	Admin. Environmental Sciences Div.	47.5	25.0
	Grade 20 Average	57.7	34.0
21	Superintendent, Institution IV	78.8	61.5
22	Physician II	54.2	25.0
23	Psychiatrist III	53.5	30.2
23	Physician III	46.7	22.2
	Grade 23 Average	50.1	26.2
25	Superintendent, Institution V	65.9	43.2

HAY ASSOCIATES

1978 SALARY SURVEY OF STATE GOVERNMENTS

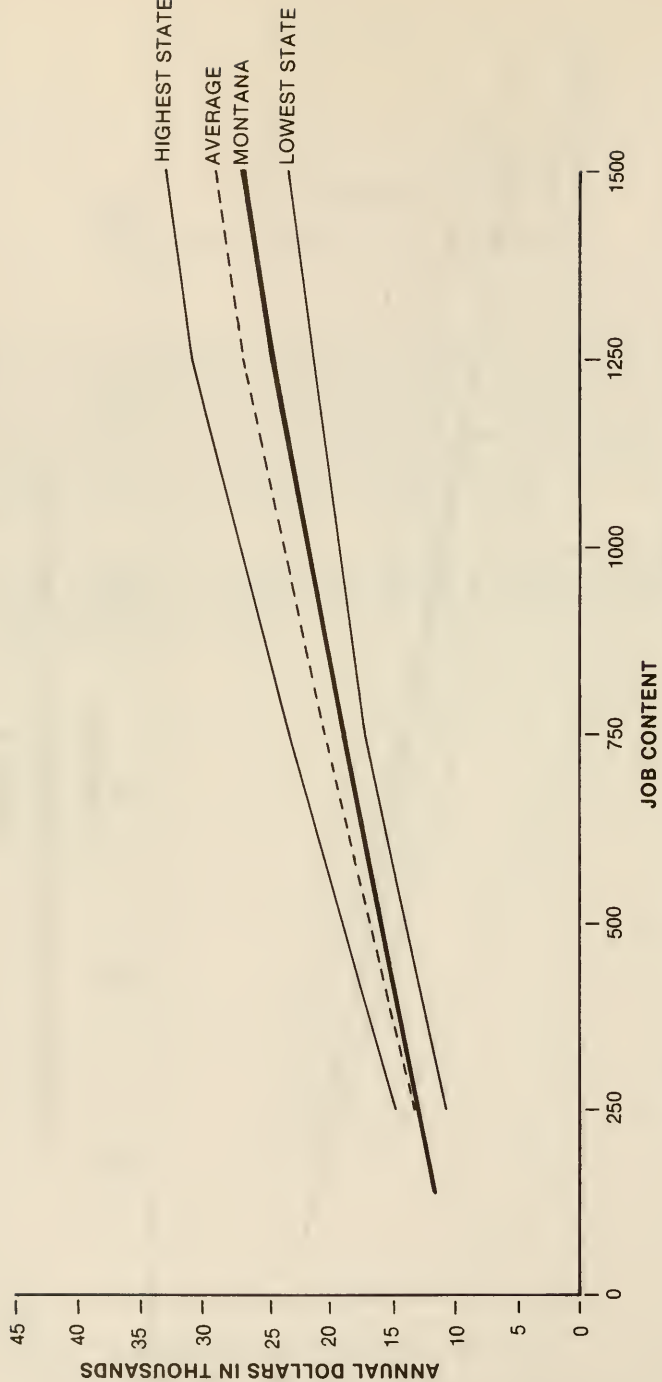
Hay Associates utilize job matches from 44 benchmark descriptions to compare state government salary practices. Average salary, data, rather than minimums and maximums, were solicited and regression lines were formulated to depict each state's actual salary practice. Charts A through F (reprinted from the Hay Survey) illustrate Montana's relative position to the other states surveyed. Chart A compares Montana to all states and the District of Columbia, Charts B, C, D and E compare Montana to various surrounding regions and Chart F compares Montana to states having comparable population sizes.

The results indicate that Montana average salaries are generally below other states, and this discrepancy seems to increase in a direct relationship to increases in job content. In other words, Montana salaries become less competitive at the upper grade levels.



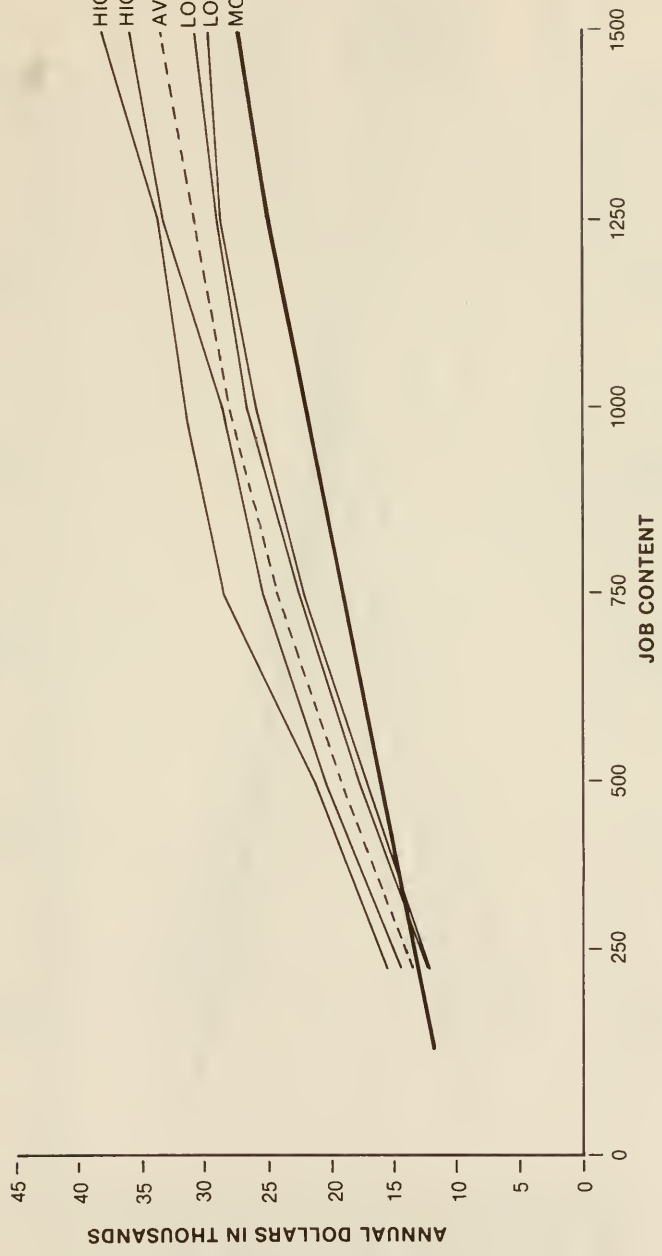
MONTANA AVERAGE SALARIES VS. ALL OTHER STATES

CHART A

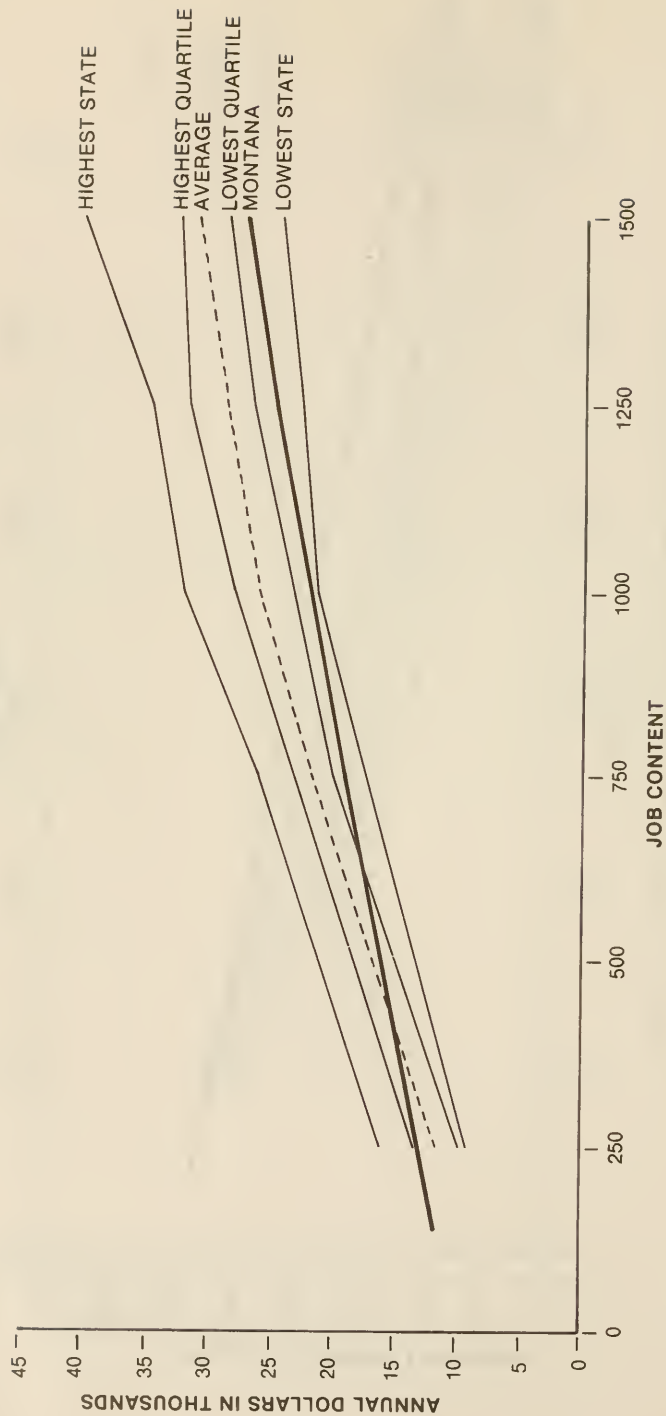


MONTANA AVERAGE SALARIES VS. NORTHWESTERN STATES

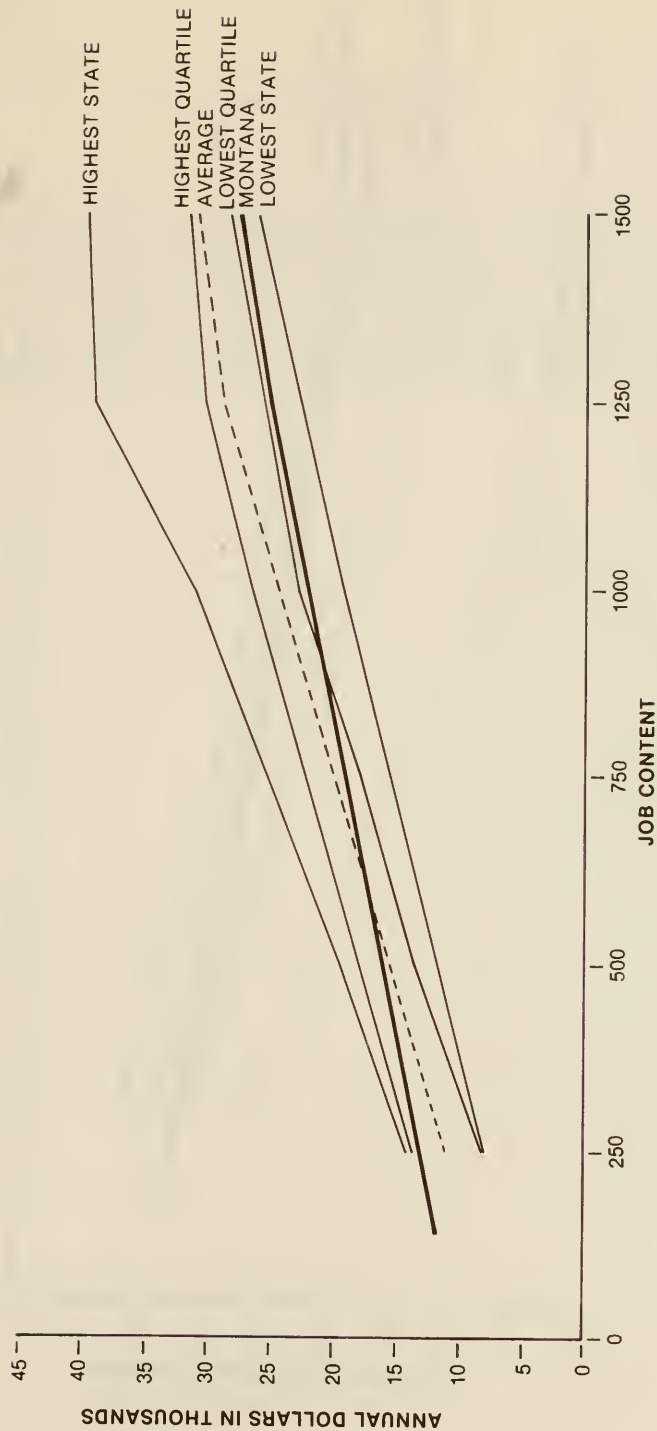
CHART B



MONTANA AVERAGE SALARIES VS. WESTERN STATES
CHART C

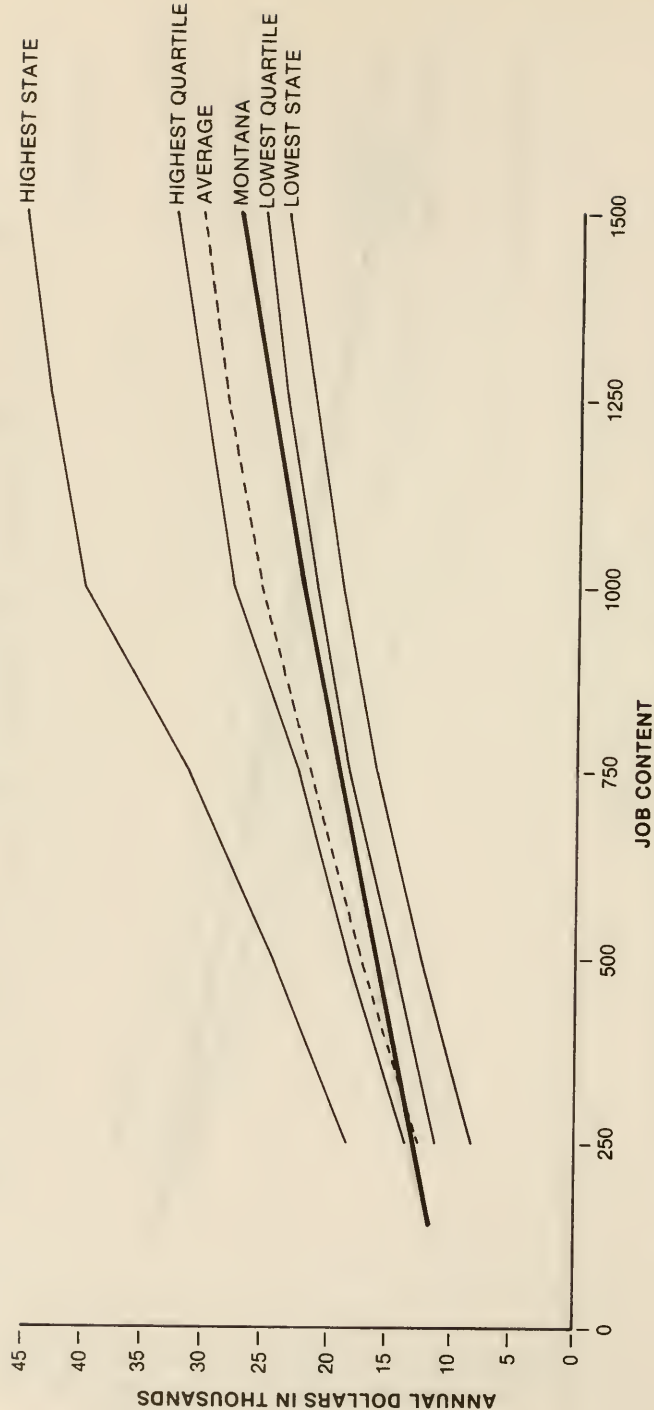


MONTANA AVERAGE SALARIES VS. SOUTHWESTERN STATES
CHART D



MONTANA AVERAGE SALARIES VS. CENTRAL STATES

CHART E



MONTANA AVERAGE SALARIES VS. OTHER STATES OF COMPARABLE SIZE
CHART F

1977 WYOMING SALARY SURVEY

The State of Wyoming solicited minimum and maximum salary data from 12 states on over one hundred classes. Data from some northernmost states with which we surveyed was not collected by Wyoming and adequate cross-sections of some of our grades were not possible by using Wyoming's key classes. However, some discrepancies in our state's pay practices were revealed. As an example, Montana's minimum salaries are generally more competitive than are maximum salaries, and, although the data are inconclusive, there may be some pay inequities at grades 15 and above. Table AIII-4 summarizes the results of the State of Wyoming survey.

TABLE AIII-4
WYOMING SALARY SURVEY SUMMARY

GRADE	NO. OF CLASSES SURVEYED	MONTANA EMPLOYMENT IN SURVEY CLASSES	PERCENT REPRESENTATION	MONTANA'S PERCENT ABOVE (OR BELOW) AVERAGE MINIMUM	MONTANA'S PERCENT ABOVE (OR BELOW) AVERAGE MAXIMUM
3	1	13	81.2	(3.2)	(7.5)
4	1	51	21.3	0.1	(4.1)
5	4	231	23.6	(1.3)	(5.3)
6	2	22	1.4	(1.2)	(4.7)
7	6	422	26.9	12.2	10.9
8	7	319	21.8	4.1	0.3
9	7	433	33.7	3.2	(1.0)
10	6	177	17.4	17.4	12.9
11	10	117	10.7	6.0	1.6
12	16	186	16.0	11.8	2.7
13	12	111	9.7	2.8	(2.2)
14	13	112	15.9	6.8	1.4
15	6	92	16.1	(7.3)	(12.7)
16	3	3	1.1	(12.8)	(17.7)
17	4	4	1.9	6.3	(1.4)
18	15	15	16.9	(1.3)	(7.8)

TABLE AIII-4 (Continued)
WYOMING SALARY SURVEY SUMMARY

GRADE	NO. OF CLASSES SURVEYED	MONTANA EMPLOYMENT IN SURVEY CLASSES	PERCENT REPRESENTATION	MONTANA'S PERCENT ABOVE (OR BELOW) AVERAGE MINIMUM	MONTANA'S PERCENT ABOVE (OR BELOW) AVERAGE MAXIMUM
19	4	7	21.2	9.2	(1.4)
20	1	1	6.7	(0.1)	(6.9)
21	1	1	28.6	17.5	6.5
23	1	6	40.0	5.7	(13.0)
25	1	2	100.0	11.7	(6.4)

ASSEMBLY OF GOVERNMENTAL EMPLOYEES
A STUDY OF 1977 STATE GOVERNMENT EMPLOYEE BENEFITS

This survey obtained extensive information on fringe benefits which are allotted to state government employees. Data was received from state personnel directors or from employee associations or from both sources for all states except Minnesota and Massachusetts. Various sources were utilized for states when the information was not available. The technique of acquiring data from various sources can lead to inconsistent reporting. For example, the number of paid holidays in Montana was misrepresented because the Assembly of Governmental Employees (AGE) arbitrarily chose the incorrect data reported.

Montana deviates significantly from the mean in regard to two statistics. The state is significantly below average in its contribution to health and life insurance plans. Only three reporting states contribute less. In addition, the average contribution to retirement plans is 8.1%. At the time the survey was conducted, Montana contributed 5.95% of salaries to its employee retirement plan. Table AIII-5 and AIII-6 from the AGE survey are reprinted to illustrate its most pertinent findings.

HEALTH INSURANCE

ACTIVE EMPLOYEE RETIRED EMPLOYEE

STATE	MONTHLY COST TO STATE		MONTHLY COST TO EMPLOYEE		RETIRED EMPLOYEE	
	Employee Only Plan	Family Plan	Employee Only Plan	Family Plan	Monthly Cost to State	Monthly Cost to Retiree
Alabama	varies	\$0	\$0	varies	not available	not available
Alaska	\$69.97 (maximum)		\$0	\$0	\$57.64	\$0
Arizona	\$32.00	\$60.00	\$0.69	\$28.69 ¹	\$32.00	\$0.69
Arkansas	\$19.00	\$19.00	\$8.80	varies	\$0	\$11.80
California	\$32.00	\$66.00	\$4.61	\$28.65	\$32.00	\$4.61
Colorado	\$19.12	\$19.12	\$34.66 ²	\$121.51 ²	\$19.12	varies
Connecticut	100%	50%	\$0	50%	not available	not available
Delaware	\$24.78	\$24.78	\$0	varies	not available	not available
Florida	\$18.02	\$18.02	\$ 4.46	\$52.36	\$0.	\$22.48
Georgia	\$14.34	\$43.94	\$ 6.16	\$21.06	same as for active	
Hawaii	\$10.00	\$30.00	\$14.32	\$37.60	\$54.00	\$0.
Idaho	\$42.68	\$42.68	\$0.	\$38.38	\$0.	\$27.40
Illinois	\$46.10	\$53.10	\$0	\$78.98 ³	\$46.10 ³	\$0.
Indiana	\$24.00	\$54.04	\$24.96	\$74.06	not available	not available
Iowa	\$33.28	\$33.28	\$0.	\$48.60	not available	not available
Kansas	\$33.72	\$55.56	\$0.	\$55.56	\$0.	\$33.72
Kentucky	\$21.55	\$0.	\$0.	\$33.30	not available	not available
Louisiana	\$10.80	\$29.36	\$10.80	\$29.36	same as for active	same as for active
Maine	\$27.65	\$27.65	\$0.	\$40.56	\$18.20	unk
Maryland	\$27.64	\$78.22	\$ 6.08	\$20.80	\$10.60	\$0 4
Massachusetts						
Michigan	\$35.21	\$98.95	\$39.22	\$11.01	same as for active	same as for active
Minnesota						
Mississippi	\$32.00	\$82.00	\$0.	\$0.	not available	not available
Missouri						

TABLE AIII-5 (Continued)

Montana	\$20.00	\$20.00	\$22.62	\$67.52	\$20.00	\$34.44
Nebraska	\$15.20	\$56.25	\$ 6.79	\$23.69	\$0.	\$ 9.60
Nevada	\$41.00	\$41.00	\$0.	\$50.00	\$0.	unk
New Hampshire	100%	\$61.50	\$0.	\$0.	100%	\$0.
New Jersey ⁵	100%	100%	\$0.	\$0.	100%	\$0.
New Mexico	\$12.14	\$30.44	\$12.14	\$30.44	\$0.	\$22.34
New York	\$23.56	\$49.65	\$0.	\$ 8.69	same as for active	\$0.
North Carolina	\$25.24	\$25.24	\$0.	\$36.64	\$0.	\$25.24
North Dakota	\$25.89	\$25.89	\$0.	\$52.61	not available	\$0.
Ohio						
Oklahoma	\$36.14	\$36.14	\$30.01	\$57.76	\$0.	\$30.01
Oregon	\$49.00	\$49.00	\$0.	\$50.00	\$0.	unk
Pennsylvania ⁶	100%	100%	\$0.	\$0.	100%	\$0.
Rhode Island	\$28.97	\$82.53	\$0.	\$0.	\$0.	\$28.72
South Carolina	\$21.00	\$21.00	\$0.	\$29.74	\$11.61	\$ 9.22
South Dakota	\$22.00	\$69.00	\$0.	\$47.00	not available	not available
Tennessee ⁷	50%	50%	50%	50%	same as for active	same as for active
Texas	\$15.00	\$15.00	varies	varies	same as for active	same as for active
Utah	\$25.00	\$56.24	\$ 5.42	\$29.92	not available	not available
Vermont	\$17.51	\$36.55	\$ 5.83	\$24.87	same as for active	same as for active
Virginia	\$24.30	\$24.30	\$0.	\$41.04	\$0.	\$24.30
Washington	\$72.50	\$72.50	\$0.	\$0.	\$0.	unk
West Virginia	\$21.26	\$46.46	\$ 9.10	\$19.90	\$0.	unk
Wisconsin	\$33.00	\$83.00	\$ 4.00	\$ 9.00	\$0.	\$23.00
Wyoming	\$25.00	\$72.45	\$0.	\$42.45	\$11.70	\$11.70

Footnotes:

- 1 Arizona - the figure shown (\$28.69) as cost to employee for family plan is for the indemnity-type plan. There are pre-paid plans which cost the employee up to \$37.42 per month.
- 2 Colorado - there is a wide variety of plans available. The figure shown (\$121.51) is the highest cost of all available plans.
- 3 Illinois - there is a wide variety of plans available. The figure shown (\$78.98) is the highest cost of all available plans.
- 4 Maryland - no cost to retirees for supplemental insurance for retirees who qualify for Medicare. Other options are available at same costs as for active employees.
- 5 New Jersey - average cost to state per active employee is \$45.83/mo. Average cost to state per retiree is \$41.66/mo.
- 6 Pennsylvania - average cost to state per active employee is \$25.13/mo. Average cost to state per retiree is \$23.80/mo.
- 7 Tennessee - actual dollar figures were unavailable.

STATE	Mandatory Participation	Contribution Rate-% Salary				Enrollment Restriction			Benefit Formula	Employees in Social Security	Integrated Plan	
		State		Emp.	Mandatory Retirement Age	Full Vesting	Restriction					Service Requirement
		Rate	%				Minimum Age	Maximum Age				
Alabama	no	9.08%	4.00%		70	15yr	16	none	1.75% x yrs x AFC (5 yrs)	yes	no	
Alaska	yes	8.00%	4.25%		none	5yr	none	none	2.00% x yrs x AFC (3yrs)	yes	no	
Arizona	yes	7.00%	7.00%		65	5yr	18	65	see footnote (1)	yes	no	
Arkansas	yes	10.00%	6.00%		65	10yr	none	none	1.80% x yrs x AFC	yes	no	
California	yes	13.50%	5.00%		67	5yr	none	none	see footnote (4)	yes	yes	
Colorado	yes	10.64%	7.75%		65	5yr	none	64	2.50% x yrs x AFC (5 yrs)	no	no	
Connecticut ⁵	no	varies	3.00%		70	10yr	none	none	2.00% x yrs x AFC	yes	no*	
Delaware	yes	unk	5.00%		65	10yr	none	none	1.66% x yrs x AFC (5 yrs)	yes	no	
Florida	yes	4.00%	4.00%		unk	10yr	unk	unk	1.65% x yrs x AFC (5 yrs)	yes	yes	
Georgia	yes	8.25%	5.00%		65	10yr	none	none	information unavailable	yes	no	
Hawaii	yes	13.80%	7.80%		70	none	none	none	2.00% x yrs x AFC	yes	no	
Idaho	yes	7.30%	4.50%		none	5yr	none	none	1.67% x yrs x AFC (5 yrs)	yes	no	
Illinois	yes	7.00%	4.00%		none	8yr	none	none	see footnote (6)	yes	no	
Indiana	yes	varies	3.00%		70	15yr	none	none	1.10% x yrs x AFC (5 yrs)	yes	no	
Iowa	yes	5.25%	3.60%		none	4yr	none	55	information unavailable	yes	no	
Kansas	yes	unk	4.00%		70	10yr	18	59	1.25% x yrs x AFC	yes	no	
Kentucky	yes	7.25%	4.00%		none	5yr	none	none	1.60% x yrs x AFC	yes	no	
Louisiana	yes	8.00%	7.00%		65	unk	none	55	2.50% x yrs x AFC (3 yrs)	no	no	
Maine	yes	10.90%	6.00%		70	10yr	none	none	2.00% x yrs x AFC	no	no	
Maryland	yes	5.86%	5.00%		70	5yr	none	none	1.80% x yrs x AFC (3 yrs)	yes	no	
Massachusetts	yes	unk	5.00%		70	10yr	none	none	2.50% x yrs x AFC (3 yrs)	no	no	
Michigan	yes	unk	0.00%		70	10yr	none	none	1.50% x yrs x AFC (5 yrs)	yes	no	
Minnesota	yes	4.00%	4.00%		unk	10yr	unk	unk	information unavailable	yes	no	
Mississippi	yes	7.50%	5.50%		65	unk	none	none	information unavailable	yes	no	
Missouri	no	7.00%	0.00%		70	10yr	none	none	1.00% x yrs x AFC (5 yrs)	yes	no	

TABLE A111-6 (Continued)

Montana	yes	4.60% (7)	6.00% (7)	none	5yr	none	5yr	1.67% x yrs x AFC information unavailable	yes	no
Nebraska	yes	8.00%	8.00%	65	9.16yr	30	65	see footnote (8)	yes	yes
Nevada	yes	varies	4.60%	none	10yr	none	55	1.67% x yrs x AFC(3 yrs)	no	no
New Hampshire	yes	4.80%	4.60%	70	10yr	none	none	1.67% x yrs x AFC(3 yrs)	yes	yes
New Jersey	yes		4.80%	70	15yr	16	59	1.67% x yrs x AFC(3 yrs)	yes	no
New Mexico	yes	6.00%	5.00%	none	5yr	none	none	2.00% x yrs x AFC(5 yrs)	yes	no
New York	yes	unk	0.00%	70	10yr	none	none	2.00% x yrs x AFC(3 yrs)	yes	no
North Carolina	yes	9.12%	6.00%	65	5yr	18	62	1.55% x yrs x AFC(4 yrs)	yes	no
North Dakota	yes	5.00%	4.00%	none	10yr	18	5mos	1.04% x yrs x AFC	yes	no
Ohio	yes	13.50%	8.50%	70	5yr	none	5yr	2.00% x yrs x AFC(3 yrs)	no	no
Oklahoma	yes	13.00%	0.00%	65	10yr	none	58	2.00% x yrs x AFC(5 yrs)	yes	no
Oregon	yes	11.59%	4.00%	60	5yr	18	none	1.00% x yrs x AFC	yes	no
Pennsylvania	yes	13.70%	5.00%	none	10yr	none	none	2.00% x yrs x AFC(3 yrs)	yes	no
Rhode Island	yes	6.80%	5.00%	70	10yr	none	60	see footnote (11)	yes	no
South Carolina	yes	6.80%	4.00%	70	15yr	none	none	see footnote (12)	yes	no
			6.00% ¹²							
South Dakota	yes	5.00%	5.00%	none	5yr	none	none	1.00% x yrs x AFC	yes	yes
Tennessee ¹³	yes	varies	varies	65	5yr	none	none	see footnote (13)	yes	yes
Texas	yes	8.00%	6.00%	none	10yr	none	none	see footnote (14)	yes	no
Utah	yes	13.15%	3.15%	65	4yr	none	none	see footnote (15)	yes	no
Vermont	yes	9.40%	5.00%	65	10yr	none	none	1.60% x yrs x AFC(5 yrs)	yes	no
Virginia	no	2.60%	5.00%	70	5yr	none	60	1.50% x yrs x AFC(3 yrs)	yes	no
Washington	yes	unk	6.00%	70	5yr	none	none	2.00% x yrs x AFC	yes	no
West Virginia	yes	9.50%	4.50%	none	unk	none	none	2.00% x yrs x AFC(3 yrs)	yes	no
Wisconsin	no	11.00%	1.00%	65	unk	none	none	1.30% x yrs x AFC(3 yrs)	yes	yes
Wyoming	yes	5.57%	5.57%	70	4yr	0	62	2.00% x yrs x AFC(3 yrs)	yes	no

* Integration of Retirement System and Social Security is recent occurrence which has had no direct impact on majority of employees to date.

AFC: Average Final Compensation

TABLE AIII-6 (Continued)

RETIREMENT - Footnotes

- 1 Arizona - Benefit formula: $(\# \text{ yrs service prior to 1967} \times 1.25\% + \# \text{ yrs service after 1967} \times 2\%) \times \text{AFC (5 yrs)}$.
- 2 Arkansas - Effective 1/1/78 a new plan will be instituted which will be mandatory for all new hires. Under this plan the state contributes 12%, the employee 0%. The new benefit formula will be: $1.625\% \times \text{yrs of service} \times \text{AFC}$ less 1.25% primary Social Security benefit.
- 3 California - Employee contribution is 5% on salary over \$317/mo.
- 4 California - Benefit formula is 1.33% of first \$400 of AFC plus 2% of AFC over \$400 $\times \text{yrs of service} \times \text{AFC (3 yrs)}$.
- 5 Connecticut - A second plan is in effect which is integrated with Social Security. Under this plan an employee contributes 2% of salary subject to Social Security tax and 5% of salary above wage base. Benefit formula is correspondingly reduced.
- 6 Illinois - Benefit formula is $(1\% \times \text{1st 10 yrs} + 1.1\% \times \text{2nd 10 yrs} + 1.3\% \times \text{3rd 10 yrs} + 1.5\% \times \text{yrs over 30}) \times \text{AFC}$. Retirement plan was integrated with Social Security in 1969. Prior to that date, a different plan existed in which employees contributed 8% of salary and a more liberal benefit formula was used.
- 7 Nebraska - Employee contributes 3% on 1st \$4800 and 6% on all above \$4800. State contributes 104% of employee contribution.
- 8 Nevada - Benefit formula is 50% of final salary at age 65 with 20 yrs service plus 2.5% of final salary for each year over 20.
- 9 New Jersey - Contribution rate for state and employee ranges from 4.80%-9.51% based on sex and age at time of entry.
- 10 Oregon - Contribution rate is based on salary: 4% is less than \$500/mo., 5% between \$500 and \$1000/mo., 6% between \$1000 and \$1500/mo., and 7% over \$1500/mo.
- 11 Rhode Island - Benefit formula is $(1.7\% \times \text{1st 10 yrs} + 1.9\% \times \text{2nd 10 yrs} + 2.4\% \times \text{yrs over 20}) \times \text{AFC (3 yrs)}$.
- 12 South Carolina - Contribution rate is 4% of first \$4800 and 6% of salary over \$4800. Benefit formula is $(1.25\% \text{ of first } \$4800 \text{ of AFC (3 yrs)} + 1.65\% \text{ of AFC over } \$4800) \times \text{yrs service}$.
- 13 Tennessee - Contribution rate: 4.5% of salary up to Social Security wage base, 5% of salary above S. S. wage base. Benefit formula is $1.5\% \times \text{yrs service} \times \text{AFC (5 yrs)}$ up to Social Security maximum plus $1.75\% \times \text{yrs service} \times \text{AFC (5 yrs)}$ in excess of Social Security maximum.
- 14 Texas - Benefit formula is $(1.5\% \times \text{1st 10 yrs service} + 2\% \times \text{yrs service over 10}) \times \text{AFC (3 yrs)}$.
- 15 Utah - Benefit formula is $(1.1\% \times \text{yrs service prior to 1967} + 1.25\% \times \text{yrs service (1967-1975)} + 2\% \times \text{yrs service after 1975}) \times \text{AFC (5 yrs)}$.

APPENDIX IV

PER CAPITA INCOME DATA FOR
STATES SURVEYED

TABLE AIV-1
CALIFORNIA

<u>FISCAL YEAR</u>	<u>PERSONAL INCOME (\$1,000,000)</u>	<u>INDEX (BASE = CY1975)</u>	<u>PER CAPITA INCOME (\$)</u>	<u>INDEX (BASE = CY1975)</u>	<u>POPULATION (AVERAGE ESTIMATE) (1,000)</u>
1975	132,849	95.3	6,311	96.0	21,052
1976	146,365	105.0	6,853	104.2	21,359
1977	162,784	116.8	7,518	114.3	21,652
1978	182,540	130.9	8,328	126.6	21,919

TABLE AIV-2
COLORADO

<u>FISCAL YEAR</u>	<u>PERSONAL INCOME (\$1,000,000)</u>	<u>INDEX (BASE = CY1975)</u>	<u>PER CAPITA INCOME (\$)</u>	<u>INDEX (BASE = CY1975)</u>	<u>POPULATION (AVERAGE ESTIMATE) (1,000)</u>
1975	14,261	94.6	5,650	95.2	2,524
1976	15,960	105.8	6,230	105.0	2,562
1977	17,504	116.1	6,689	112.7	2,617
1978	19,378	128.5	7,218	121.6	2,685

TABLE AIV-3
IDAHO

<u>FISCAL YEAR</u>	<u>PERSONAL INCOME (\$1,000,000)</u>	<u>INDEX (BASE = CY1975)</u>	<u>PER CAPITA INCOME (\$)</u>	<u>INDEX (BASE = CY1975)</u>	<u>POPULATION (AVERAGE ESTIMATE) (1,000)</u>
1975	3,974	94.4	4,943	95.5	804
1976	4,475	106.3	5,444	105.1	822
1977	4,962	117.9	5,900	113.9	841
1978	5,697	135.3	6,607	127.6	862

TABLE AIV-4
IOWA

<u>FISCAL YEAR</u>	<u>PERSONAL INCOME (\$1,000,000)</u>	<u>INDEX (BASE = CY1975)</u>	<u>PER CAPITA INCOME (\$)</u>	<u>INDEX (BASE = CY1975)</u>	<u>POPULATION (AVERAGE ESTIMATE) (1,000)</u>
1975	15,562	91.8	5,447	91.9	2,857
1976	18,333	108.1	6,397	107.9	2,866
1977	18,878	111.3	6,571	110.8	2,873
1978	21,072	124.3	7,318	123.4	2,879

TABLE AIV-5
KANSAS

<u>FISCAL YEAR</u>	<u>PERSONAL INCOME (\$1,000,000)</u>	<u>INDEX (BASE = CY1975)</u>	<u>PER CAPITA INCOME (\$)</u>	<u>INDEX (BASE = CY1975)</u>	<u>POPULATION (AVERAGE ESTIMATE) (1,000)</u>
1975	12,872	95.5	5,658	94.7	2,275
1976	14,514	106.6	6,324	105.9	2,295
1977	15,613	114.6	6,744	112.9	2,315
1978	17,329	127.3	7,451	124.7	2,326

TABLE AIV-6
MINNESOTA

<u>FISCAL YEAR</u>	<u>PERSONAL INCOME (\$1,000,000)</u>	<u>INDEX (BASE = CY1975)</u>	<u>PER CAPITA INCOME (\$)</u>	<u>INDEX (BASE = CY1975)</u>	<u>POPULATION (AVERAGE ESTIMATE) (1,000)</u>
1975	21,787	95.9	5,571	96.1	3,911
1976	24,083	106.0	6,108	105.4	3,943
1977	25,861	113.8	6,501	112.1	3,978
1978	28,786	126.6	7,190	124.0	4,004

TABLE AIV-7
NEBRASKA

<u>FISCAL YEAR</u>	<u>PERSONAL INCOME (\$1,000,000)</u>	<u>INDEX (BASE = CY1975)</u>	<u>PER CAPITA INCOME (\$)</u>	<u>INDEX (BASE = CY1975)</u>	<u>POPULATION (AVERAGE ESTIMATE) (1,000)</u>
1975	8,459	91.4	5,486	91.5	1,542
1976	9,842	106.3	6,358	106.1	1,548
1977	9,907	107.0	6,355	106.0	1,559
1978	10,926	118.0	6,960	116.1	1,570

TABLE AIV-8
NEVADA

<u>FISCAL YEAR</u>	<u>PERSONAL INCOME (\$1,000,000)</u>	<u>INDEX (BASE = CY1975)</u>	<u>PER CAPITA INCOME (\$)</u>	<u>INDEX (BASE = CY1975)</u>	<u>POPULATION (AVERAGE ESTIMATE) (1,000)</u>
1975	3,653	93.6	6,277	94.9	582
1976	4,089	104.8	6,815	103.0	600
1977	4,676	119.8	7,530	113.8	621
1978	5,476	140.3	8,503	128.5	644

TABLE AIV-9
NORTH DAKOTA

<u>FISCAL YEAR</u>	<u>PERSONAL INCOME (\$1,000,000)</u>	<u>INDEX (BASE = CY1975)</u>	<u>PER CAPITA INCOME (\$)</u>	<u>INDEX (BASE = CY1975)</u>	<u>POPULATION (AVERAGE ESTIMATE) (1,000)</u>
1975	3,391	93.7	5,332	93.8	636
1976	3,802	105.0	5,941	104.5	640
1977	3,920	108.3	6,068	106.8	646
1978	4,942	136.5	7,590	133.6	651

TABLE AIV-10
OREGON

<u>FISCAL YEAR</u>	<u>PERSONAL INCOME (\$1,000,000)</u>	<u>INDEX (BASE = CY1975)</u>	<u>PER CAPITA INCOME (\$)</u>	<u>INDEX (BASE = CY1975)</u>	<u>POPULATION (AVERAGE ESTIMATE (1,000))</u>
1975	12,540	95.1	5,529	95.8	2,268
1976	14,062	106.6	6,098	105.6	2,306
1977	15,619	118.4	6,649	115.2	2,349
1978	17,592	133.4	7,359	127.5	2,390

TABLE AIV-11
SOUTH DAKOTA

<u>FISCAL YEAR</u>	<u>PERSONAL INCOME (\$1,000,000)</u>	<u>INDEX (BASE = CY1975)</u>	<u>PER CAPITA INCOME (\$)</u>	<u>INDEX (BASE = CY1975)</u>	<u>POPULATION (AVERAGE ESTIMATE (1,000))</u>
1975	3,251	96.5	4,781	96.7	680
1976	3,440	102.1	5,029	101.7	684
1977	3,664	108.8	5,326	107.7	688
1978	4,082	121.2	5,907	119.4	691

TABLE AIV-12
UTAH

<u>FISCAL YEAR</u>	<u>PERSONAL INCOME (\$1,000,000)</u>	<u>INDEX (BASE = CY1975)</u>	<u>PER CAPITA INCOME (\$)</u>	<u>INDEX (BASE = CY1975)</u>	<u>POPULATION (AVERAGE ESTIMATE (1,000))</u>
1975	5,399	93.9	4,541	95.1	1,189
1976	6,131	106.7	5,042	105.5	1,216
1977	6,957	121.1	5,597	117.2	1,243
1978	7,750	134.9	6,088	127.4	1,273

TABLE AIV-13
WASHINGTON

<u>FISCAL YEAR</u>	<u>PERSONAL INCOME (\$1,000,000)</u>	<u>INDEX (BASE = CY1975)</u>	<u>PER CAPITA INCOME (\$)</u>	<u>INDEX (BASE = CY1975)</u>	<u>POPULATION (AVERAGE ESTIMATE) (1,000)</u>
1975	20,910	94.7	5,920	95.4	3,532
1976	23,419	106.1	6,531	105.3	3,586
1977	25,959	117.6	7,147	115.2	3,632
1978	29,284	132.6	7,973	128.5	3,673

TABLE AIV-14
WISCONSIN

<u>FISCAL YEAR</u>	<u>PERSONAL INCOME (\$1,000,000)</u>	<u>INDEX (BASE = CY1975)</u>	<u>PER CAPITA INCOME (\$)</u>	<u>INDEX (BASE = CY1975)</u>	<u>POPULATION (AVERAGE ESTIMATE) (1,000)</u>
1975	24,828	95.5	5,428	95.8	4,574
1976	27,316	105.0	5,940	104.8	4,599
1977	29,631	113.9	6,407	113.0	4,624
1978	33,139	127.4	7,119	125.6	4,655

TABLE AIV-14
WYOMING

<u>FISCAL YEAR</u>	<u>PERSONAL INCOME (\$1,000,000)</u>	<u>INDEX (BASE = CY1975)</u>	<u>PER CAPITA INCOME (\$)</u>	<u>INDEX (BASE = CY1975)</u>	<u>POPULATION (AVERAGE ESTIMATE) (1,000)</u>
1975	2,058	92.2	5,592	94.2	368
1976	2,462	110.3	6,428	108.2	383
1977	2,738	122.6	6,949	117.0	394
1978	3,074	137.7	7,657	128.9	401

APPENDIX V

PAY PLAN ANALYSIS

The State pay matrix was analyzed by computer to demonstrate the changes that have occurred since 1975.

COMPARISON OF 1975 TO 1976

GRADE	1	2	3	4	5	6	7	8	9	10	11	12	13
1.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
2.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
3.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
4.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
6.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
7.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
8.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
9.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
9.5	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
10.5	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
11.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
11.5	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
12.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
12.5	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
13.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
14.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
15.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
16.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
17.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
18.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
19.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
20.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
21.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
22.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
23.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
24.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
25.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0

THE FIGURES IN THE BODY OF THE TABLE REPRESENT THE PERCENT OF INCREASE FROM ONE PAY MATRIX TO ANOTHER

COMPARISON OF 1975 TO 1977

GRADE	1	2	3	4	5	6	7	8	9	10	11	12	13
1.0	.0	.0	9.3	9.3	9.3	9.3	9.3	9.3	9.3	9.3	9.3	9.3	9.3
2.0	9.3	9.3	9.3	9.3	9.3	9.3	9.3	9.3	9.3	9.3	9.3	9.3	9.3
3.0	9.3	9.3	9.3	9.3	9.3	9.3	9.3	9.3	9.3	9.3	9.3	9.3	9.3
4.0	9.3	9.3	9.3	9.3	9.3	9.3	9.3	9.3	9.3	9.3	9.3	9.3	9.3
5.0	9.3	9.3	9.3	9.3	9.3	9.3	9.3	9.3	9.3	9.3	9.3	9.3	9.3
6.0	9.3	9.3	9.3	9.3	9.3	9.3	9.3	9.3	9.3	9.3	9.3	9.3	9.3
7.0	9.3	9.3	9.3	9.3	9.3	9.3	9.3	9.3	9.3	9.3	9.3	9.3	9.3
8.0	9.3	9.3	9.3	9.3	9.3	9.3	9.3	9.3	9.3	9.3	9.3	9.3	9.3
9.0	9.3	9.3	9.3	9.3	9.3	9.3	9.3	9.3	9.3	9.3	9.3	9.3	9.3
9.5	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10.0	9.3	9.3	9.3	9.3	9.3	9.3	9.3	9.3	9.3	9.3	9.3	9.3	9.3
10.5	9.3	9.3	9.3	9.3	9.3	9.3	9.3	9.3	9.3	9.3	9.3	9.3	9.3
11.0	9.3	9.3	9.3	9.3	9.3	9.3	9.3	9.3	9.3	9.3	9.3	9.3	9.3
11.5	9.3	9.3	9.3	9.3	9.3	9.3	9.3	9.3	9.3	9.3	9.3	9.3	9.3
12.0	9.3	9.3	9.3	9.3	9.3	9.3	9.3	9.3	9.3	9.3	9.3	9.3	9.3
12.5	9.3	9.3	9.3	9.3	9.3	9.3	9.3	9.3	9.3	9.3	9.3	9.3	9.3
13.0	9.3	9.3	9.3	9.3	9.3	9.3	9.3	9.3	9.3	9.3	9.3	9.3	9.3
14.0	9.3	9.3	9.3	9.3	9.3	9.3	9.3	9.3	9.3	9.3	9.3	9.3	9.3
15.0	9.3	9.3	9.3	9.3	9.3	9.3	9.3	9.3	9.3	9.3	9.3	9.3	9.3
16.0	9.3	9.3	9.3	9.3	9.3	9.3	9.3	9.3	9.3	9.3	9.3	9.3	9.3
17.0	9.3	9.3	9.3	9.3	9.3	9.3	9.3	9.3	9.3	9.3	9.3	9.3	9.3
18.0	9.3	9.3	9.3	9.3	9.3	9.3	9.3	9.3	9.3	9.3	9.3	9.3	9.3
19.0	9.3	9.3	9.3	9.3	9.3	9.3	9.3	9.3	9.3	9.3	9.3	9.3	9.3
20.0	9.3	9.3	9.3	9.3	9.3	9.3	9.3	9.3	9.3	9.3	9.3	9.3	9.3
21.0	9.3	9.4	9.3	9.3	9.3	9.3	9.3	9.3	9.3	9.3	9.3	9.3	9.3
22.0	9.3	9.3	9.3	9.3	9.3	9.3	9.3	9.3	9.3	9.3	9.3	9.3	9.3
23.0	9.3	9.3	9.3	9.3	9.3	9.3	9.3	9.3	9.3	9.3	9.3	9.3	9.3
24.0	9.3	9.3	9.3	9.3	9.3	9.3	9.3	9.3	9.3	9.3	9.3	9.3	9.3
25.0	9.3	9.3	9.3	9.3	9.3	9.3	9.3	9.3	9.3	9.3	9.3	9.3	9.3

THE FIGURES IN THE BODY OF THE TABLE REPRESENT THE PERCENT OF INCREASE FROM ONE PAY MATRIX TO ANOTHER

COMPARISON OF 1975 TO 1978

GRADE	1	2	3	4	5	6	7	8	9	10	11	12	13
1.0	1.0	0	19.3	19.8	19.7	18.9	18.7	18.4	18.3	19.0	18.9	18.8	18.7
2.0	18.9	18.9	18.7	18.4	18.3	18.0	17.8	17.7	17.6	18.3	18.2	18.1	18.0
3.0	18.1	18.0	17.8	17.7	17.6	17.2	17.1	17.0	16.8	17.6	17.5	17.3	17.2
4.0	17.3	17.2	17.1	17.0	16.8	16.6	16.5	16.2	16.1	16.9	16.8	16.7	16.6
5.0	16.6	16.6	16.5	16.2	16.1	15.9	15.8	15.6	15.5	16.3	16.3	16.1	16.0
6.0	15.9	15.9	15.8	15.6	15.5	15.3	15.2	15.1	15.0	15.8	15.7	15.6	15.6
7.0	15.3	15.3	15.2	15.1	15.0	14.8	14.7	14.5	14.5	15.2	15.2	15.1	15.1
8.0	14.8	14.8	14.7	14.5	14.5	14.3	14.2	14.1	14.0	14.8	14.7	14.7	14.7
9.0	14.3	14.3	14.2	14.1	14.0	13.8	13.8	13.7	13.6	14.4	14.4	14.3	14.2
9.5	0	0	0	0	0	0	0	0	0	0	0	0	0
10.0	13.9	13.8	13.8	13.7	13.6	13.5	13.4	13.2	13.2	14.0	14.0	13.9	13.9
10.5	13.7	13.6	13.6	13.4	13.4	13.2	13.2	13.1	13.0	13.9	13.8	13.7	13.7
11.0	13.5	13.5	13.4	13.2	13.2	13.1	13.0	12.9	12.9	13.7	13.6	13.6	13.6
11.5	13.2	13.2	13.2	13.1	13.0	12.9	12.9	12.7	12.7	13.5	13.5	13.4	13.4
12.0	13.1	13.1	13.0	12.9	12.9	12.7	12.7	12.6	12.6	13.4	13.4	13.3	13.3
12.5	12.9	12.9	12.9	12.7	12.7	12.6	12.5	12.5	12.4	13.3	13.2	13.1	13.1
13.0	12.7	12.7	12.7	12.6	12.6	12.4	12.4	12.3	12.3	13.1	13.1	13.0	13.0
14.0	12.4	12.5	12.5	12.5	12.5	12.4	12.4	12.4	12.4	12.4	12.4	12.4	12.4
15.0	12.2	12.5	12.4	12.4	12.4	12.4	12.4	12.4	12.4	12.4	12.4	12.4	12.4
16.0	11.9	12.4	12.4	12.4	12.4	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3
17.0	11.7	12.4	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3
18.0	11.5	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3
19.0	11.3	12.3	12.3	12.3	12.2	12.2	12.2	12.2	12.2	12.2	12.2	12.2	12.2
20.0	11.1	12.2	12.2	12.2	12.2	12.2	12.2	12.2	12.2	12.2	12.2	12.2	12.2
21.0	10.9	12.2	12.2	12.2	12.2	12.2	12.2	12.2	12.2	12.2	12.2	12.2	12.2
22.0	10.8	12.2	12.2	12.2	12.2	12.2	12.2	12.2	12.2	12.2	12.2	12.2	12.2
23.0	10.6	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1
24.0	10.5	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1
25.0	10.4	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1

THE FIGURES IN THE BODY OF THE TABLE REPRESENT THE PERCENT OF INCREASE FROM ONE PAY MATRIX TO ANOTHER

COMPARISON OF 1975 TO 1979

GRADE	1	2	3	4	5	6	7	8	9	10	11	12	13
1.0	29.5	29.0	30.3	30.9	31.3	30.3	29.3	28.8	28.3	29.0	29.6	29.4	29.2
2.0	29.5	29.5	29.3	28.8	28.3	27.9	27.4	27.1	26.8	27.4	28.0	27.8	27.6
3.0	27.7	27.6	27.4	27.1	26.8	26.3	25.8	25.5	25.3	26.0	26.6	26.3	26.0
4.0	26.1	26.0	25.8	25.5	25.3	24.9	24.6	24.1	23.7	24.4	25.1	25.0	24.8
5.0	24.3	24.7	24.6	24.1	23.7	23.3	23.0	22.7	22.5	23.2	24.0	23.7	23.5
6.0	23.3	23.2	23.0	22.7	22.5	22.2	21.9	21.6	21.4	22.1	22.8	22.7	22.5
7.0	22.0	22.0	21.9	21.6	21.4	21.0	20.7	20.5	20.3	21.0	21.7	21.6	21.5
8.0	20.9	20.8	20.7	20.5	20.3	20.0	19.7	19.5	19.3	20.0	20.8	20.7	20.6
9.0	19.9	19.8	19.7	19.5	19.3	19.0	18.8	18.6	18.5	19.2	19.9	19.8	19.7
9.5	19.0	19.0	19.0	19.0	19.0	19.0	19.0	19.0	19.0	19.0	19.0	19.0	19.0
10.0	18.9	18.9	18.8	18.6	18.5	18.2	18.0	17.7	17.5	18.4	19.2	19.1	19.0
10.5	18.5	18.5	18.4	18.1	17.9	17.8	17.6	17.4	17.2	18.0	18.8	18.7	18.6
11.0	18.1	18.1	18.0	17.7	17.5	17.3	17.2	17.0	16.9	17.7	18.5	18.4	18.2
11.5	17.6	17.6	17.6	17.4	17.2	17.0	16.9	16.7	16.5	17.3	18.1	18.0	17.9
12.0	17.3	17.3	17.2	17.0	16.9	16.7	16.5	16.4	16.2	17.0	17.8	17.7	17.6
12.5	16.9	16.9	16.9	16.7	16.5	16.3	16.2	16.0	15.9	16.7	17.5	17.4	17.3
13.0	16.6	16.6	16.5	16.4	16.2	16.0	15.9	15.7	15.6	16.4	17.2	17.2	17.1
14.0	15.9	15.9	15.9	15.9	15.9	15.8	15.8	15.8	15.8	15.9	16.7	16.9	16.9
15.0	15.3	15.6	15.9	15.9	15.9	15.8	15.8	15.7	15.7	15.7	16.7	16.7	16.6
16.0	14.8	15.3	15.8	15.8	15.8	15.7	15.7	15.7	15.7	15.6	16.5	16.5	16.4
17.0	14.3	15.0	15.7	15.7	15.6	15.6	15.6	15.6	15.6	15.6	16.4	16.4	16.3
18.0	13.9	14.7	15.6	15.6	15.5	15.5	15.5	15.5	15.5	15.5	16.2	16.2	16.1
19.0	13.5	14.5	15.5	15.5	15.5	15.4	15.4	15.4	15.4	15.4	16.1	16.1	16.0
20.0	13.1	14.3	15.4	15.4	15.4	15.4	15.4	15.4	15.4	15.4	16.0	16.0	15.9
21.0	12.8	14.0	15.3	15.3	15.3	15.3	15.3	15.3	15.3	15.3	16.0	16.0	15.9
22.0	12.4	13.8	15.2	15.2	15.2	15.2	15.2	15.2	15.2	15.2	16.0	16.0	15.9
23.0	12.2	13.7	15.2	15.2	15.2	15.2	15.2	15.2	15.2	15.2	16.0	16.0	15.9
24.0	11.9	13.5	15.1	15.1	15.1	15.1	15.1	15.1	15.1	15.1	16.0	16.0	15.9
25.0	11.7	13.4	15.1	15.1	15.0	15.0	15.0	15.0	15.0	15.0	16.0	16.0	15.9

THE FIGURES IN THE BODY OF THE TABLE REPRESENT THE PERCENT OF INCREASE FROM ONE PAY MATRIX TO ANOTHER

COMPARISON OF 1976 TO 1977

GRADE	1	2	3	4	5	6	7	8	9	10	11	12	13
1.0	.0	.0	4.0	4.0	4.1	4.0	4.0	4.1	4.1	4.1	4.1	4.1	4.1
2.0	4.1	4.0	4.0	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1
3.0	4.1	4.1	4.1	4.0	4.1	4.1	4.1	4.1	4.1	4.0	4.1	4.0	4.1
4.0	4.1	4.0	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.0	4.0	4.0
5.0	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.0	4.1
6.0	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1
7.0	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1
8.0	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1
9.0	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1
9.5	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10.0	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1
10.5	4.1	4.1	4.1	4.1	4.0	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1
11.0	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1
11.5	4.0	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1
12.0	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1
12.5	4.1	4.1	4.0	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.0	4.1
13.0	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1
14.0	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1
15.0	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1
16.0	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1
17.0	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1
18.0	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1
19.0	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1
20.0	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1
21.0	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1
22.0	4.1	4.2	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1
23.0	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1
24.0	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1
25.0	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1

THE FIGURES IN THE BODY OF THE TABLE REPRESENT THE PERCENT OF INCREASE FROM ONE PAY MATRIX TO ANOTHER

COMPARISON OF 1977 TO 1978

GRADE	1	2	3	4	5	6	7	8	9	10	11	12	13
1.0	.0	.0	9.1	9.7	9.5	8.8	8.7	8.4	8.2	8.9	8.8	8.7	8.6
2.0	8.8	8.8	8.7	8.4	8.2	8.0	7.8	7.7	7.6	8.2	8.1	8.1	8.0
3.0	8.0	8.0	7.8	7.7	7.6	7.3	7.1	7.0	6.9	7.6	7.5	7.3	7.3
4.0	7.3	7.3	7.1	7.0	6.9	6.7	6.6	6.3	6.2	6.9	6.9	6.8	6.7
5.0	6.7	6.7	6.6	6.3	6.2	6.0	5.9	5.8	5.7	6.4	6.4	6.2	6.2
6.0	6.1	6.0	5.9	5.8	5.7	5.5	5.4	5.3	5.2	5.9	5.9	5.8	5.8
7.0	5.5	5.5	5.4	5.3	5.2	5.0	5.0	4.8	4.8	5.5	5.4	5.4	5.3
8.0	5.1	5.0	5.0	4.8	4.8	4.6	4.5	4.4	4.3	5.0	5.0	5.0	4.9
9.0	4.6	4.6	4.5	4.4	4.3	4.2	4.1	4.0	4.0	4.7	4.7	4.6	4.5
9.5	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10.0	4.2	4.2	4.1	4.0	4.0	3.8	3.8	3.6	3.6	4.4	4.3	4.3	4.2
10.5	4.0	4.0	3.9	3.8	3.8	3.6	3.6	3.5	3.4	4.2	4.2	4.1	4.1
11.0	3.8	3.8	3.8	3.6	3.6	3.5	3.4	3.3	3.3	4.0	4.0	3.9	3.9
11.5	3.7	3.6	3.6	3.5	3.4	3.3	3.3	3.2	3.2	3.9	3.9	3.8	3.8
12.0	3.5	3.5	3.4	3.3	3.3	3.2	3.1	3.0	3.0	3.8	3.7	3.7	3.6
12.5	3.3	3.3	3.3	3.2	3.2	3.0	3.0	2.9	2.9	3.6	3.6	3.6	3.5
13.0	3.2	3.2	3.1	3.0	3.0	2.9	2.9	2.8	2.8	3.5	3.5	3.4	3.4
14.0	2.9	3.0	2.9	2.9	2.9	2.9	2.9	2.8	2.8	2.9	2.9	3.8	3.8
15.0	2.6	2.9	2.9	2.9	2.9	2.9	2.9	2.8	2.8	2.8	2.8	3.7	3.7
16.0	2.4	2.9	2.9	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	3.6	3.6
17.0	2.2	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	3.5	3.5
18.0	2.0	2.8	2.8	2.8	2.8	2.8	2.7	2.7	2.7	2.7	2.7	3.4	3.4
19.0	1.8	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	3.3	3.3
20.0	1.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	3.3	3.3
21.0	1.5	2.5	2.8	2.7	2.7	2.7	2.7	2.7	2.7	2.6	2.6	3.2	3.2
22.0	1.4	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	3.1	3.1
23.0	1.3	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	3.0	3.0
24.0	1.1	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.9	2.9
25.0	1.0	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.9	2.9

THE FIGURES IN THE BODY OF THE TABLE REPRESENT THE PERCENT OF INCREASE FROM ONE PAY MATRIX TO ANOTHER

COMPARISON OF 1978 TO 1979

GRADE	1	2	3	4	5	6	7	8	9	10	11	12	13
1.0	.0	.0	9.2	9.2	9.7	9.5	8.9	8.8	8.5	8.4	11	12	13
2.0	8.9	8.2	8.9	8.6	7.9	8.4	9.1	8.0	7.9	7.8	8.3	8.9	8.8
3.0	8.2	7.5	8.1	9.0	7.9	7.8	7.4	7.3	7.2	7.1	7.8	8.3	8.2
4.0	7.5	6.9	7.4	7.3	7.2	7.1	6.9	6.8	6.5	6.4	7.1	7.7	7.5
5.0	6.9	6.3	6.9	6.8	6.5	6.4	6.3	6.2	6.0	5.9	6.6	6.6	6.4
6.0	6.3	5.8	6.3	6.2	6.0	5.9	5.8	5.7	5.5	5.5	6.1	6.1	6.0
7.0	5.8	5.3	5.8	5.7	5.5	5.5	5.3	5.2	5.1	5.0	5.7	5.6	5.6
8.0	5.3	5.3	5.3	5.2	5.1	5.0	4.8	4.8	4.6	4.6	5.2	5.2	5.2
9.0	4.9	4.9	4.8	4.8	4.6	4.6	4.4	4.4	4.3	4.2	4.9	4.9	4.8
9.5	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10.0	4.4	4.4	4.4	4.4	4.3	4.2	4.1	4.0	3.8	3.8	4.6	4.5	4.4
10.5	4.2	4.2	4.2	4.2	4.0	4.0	3.9	3.8	3.7	3.6	4.4	4.4	4.3
11.0	4.1	4.1	4.1	4.0	3.8	3.8	3.7	3.7	3.5	3.5	4.2	4.2	4.1
11.5	3.9	3.9	3.9	3.8	3.7	3.6	3.6	3.5	3.4	3.4	4.1	4.0	4.0
12.0	3.7	3.7	3.7	3.7	3.5	3.5	3.4	3.4	3.2	3.2	3.9	3.9	3.8
12.5	3.5	3.5	3.6	3.5	3.4	3.4	3.2	3.2	3.1	3.1	3.8	3.7	3.7
13.0	3.4	3.4	3.4	3.4	3.2	3.2	3.1	3.1	3.0	2.9	3.7	3.6	3.6
14.0	3.1	3.1	3.2	3.1	3.1	3.1	3.0	3.0	3.0	3.0	3.0	3.0	3.0
15.0	2.8	2.8	3.1	3.1	3.1	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
16.0	2.6	2.6	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
17.0	2.4	2.4	3.0	3.0	3.0	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9
18.0	2.2	2.2	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9
19.0	2.0	2.0	2.9	2.9	2.9	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8
20.0	1.8	1.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8
21.0	1.6	1.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6
22.0	1.5	1.5	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7
23.0	1.4	1.4	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7
24.0	1.3	1.3	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7
25.0	1.1	1.1	2.7	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6

THE FIGURES IN THE BODY OF THE TABLE REPRESENT THE PERCENT OF INCREASE FROM ONE PAY MATRIX TO ANOTHER

COMPARISON OF 1975 TO 1976

GRADE	1	2	3	4	5	6	7	8	9	10	11	12	13
1.0	.00	.00	209.00	213.00	217.00	222.00	227.00	232.00	238.00	241.00	245.00	248.00	252.00
2.0	217.00	222.00	227.00	232.00	238.00	243.00	249.00	255.00	260.00	264.00	268.00	272.00	276.00
3.0	238.00	243.00	249.00	255.00	260.00	267.00	273.00	279.00	286.00	290.00	294.00	299.00	303.00
4.0	260.00	267.00	273.00	279.00	286.00	292.00	299.00	306.00	313.00	318.00	323.00	328.00	333.00
5.0	286.00	292.00	299.00	306.00	313.00	321.00	328.00	336.00	344.00	349.00	354.00	360.00	365.00
6.0	313.00	321.00	328.00	336.00	344.00	352.00	360.00	369.00	377.00	383.00	389.00	394.00	400.00
7.0	344.00	352.00	360.00	369.00	377.00	386.00	395.00	404.00	414.00	420.00	426.00	433.00	439.00
8.0	377.00	386.00	395.00	404.00	414.00	424.00	434.00	444.00	454.00	461.00	468.00	475.00	482.00
9.0	414.00	424.00	434.00	444.00	454.00	465.00	476.00	487.00	498.00	506.00	513.00	521.00	529.00
9.5	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
10.0	454.00	465.00	476.00	487.00	498.00	510.00	521.00	534.00	547.00	555.00	563.00	571.00	580.00
10.5	477.00	487.00	499.00	509.00	522.00	535.00	547.00	559.00	574.00	583.00	591.00	599.00	607.00
11.0	498.00	510.00	521.00	534.00	547.00	560.00	573.00	586.00	600.00	609.00	618.00	627.00	636.00
11.5	522.00	535.00	547.00	559.00	574.00	587.00	601.00	613.00	628.00	638.00	647.00	658.00	668.00
12.0	547.00	560.00	573.00	586.00	600.00	614.00	628.00	643.00	657.00	667.00	677.00	687.00	698.00
12.5	574.00	587.00	601.00	613.00	628.00	642.00	660.00	674.00	688.00	702.00	709.00	720.00	732.00
13.0	600.00	614.00	628.00	643.00	657.00	673.00	689.00	705.00	721.00	732.00	743.00	754.00	765.00
14.0	657.00	672.00	687.00	702.00	718.00	733.00	748.00	763.00	778.00	793.00	808.00	815.00	823.00
15.0	721.00	736.00	751.00	766.00	781.00	796.00	811.00	826.00	841.00	856.00	871.00	879.00	887.00
16.0	791.00	807.00	822.00	837.00	852.00	867.00	882.00	897.00	912.00	927.00	942.00	949.00	957.00
17.0	868.00	883.00	898.00	913.00	928.00	943.00	958.00	973.00	988.00	1003.00	1018.00	1026.00	1033.00
18.0	952.00	967.00	982.00	997.00	1012.00	1027.00	1042.00	1057.00	1072.00	1085.00	1102.00	1110.00	1117.00
19.0	1045.00	1060.00	1075.00	1090.00	1105.00	1120.00	1135.00	1150.00	1165.00	1180.00	1195.00	1203.00	1210.00
20.0	1146.00	1161.00	1176.00	1191.00	1206.00	1221.00	1236.00	1251.00	1266.00	1281.00	1296.00	1304.00	1311.00
21.0	1257.00	1272.00	1287.00	1302.00	1317.00	1332.00	1347.00	1362.00	1377.00	1392.00	1407.00	1415.00	1422.00
22.0	1379.00	1394.00	1409.00	1424.00	1439.00	1454.00	1469.00	1484.00	1499.00	1514.00	1529.00	1537.00	1544.00
23.0	1513.00	1528.00	1543.00	1558.00	1573.00	1588.00	1603.00	1618.00	1633.00	1648.00	1663.00	1670.00	1678.00
24.0	1659.00	1674.00	1689.00	1704.00	1720.00	1735.00	1750.00	1765.00	1780.00	1795.00	1810.00	1817.00	1823.00
25.0	1821.00	1836.00	1851.00	1866.00	1881.00	1896.00	1911.00	1926.00	1941.00	1956.00	1971.00	1978.00	1986.00

THE FIGURES IN THE BODY OF THE TABLE REPRESENT THE
DOLLAR AMOUNT OF INCREASE FROM ONE PAY MATRIX
TO ANOTHER

COMPARISON OF 1975 TO 1977

GRADE	1	2	3	4	5	6	7	8	9	10	11	12	13
1.0	.00	.00	386.00	393.00	401.00	410.00	419.00	429.00	440.00	446.00	453.00	460.00	466.00
2.0	401.00	410.00	419.00	429.00	440.00	450.00	461.00	471.00	482.00	489.00	496.00	503.00	511.00
3.0	440.00	450.00	461.00	471.00	482.00	493.00	503.00	517.00	529.00	535.00	544.00	552.00	561.00
4.0	482.00	493.00	505.00	517.00	529.00	541.00	553.00	566.00	580.00	589.00	597.00	606.00	615.00
5.0	529.00	541.00	553.00	566.00	580.00	594.00	608.00	622.00	636.00	646.00	655.00	665.00	675.00
6.0	580.00	594.00	608.00	622.00	636.00	651.00	667.00	682.00	698.00	708.00	719.00	729.00	740.00
7.0	636.00	651.00	667.00	682.00	698.00	714.00	731.00	748.00	766.00	777.00	789.00	801.00	812.00
8.0	698.00	714.00	731.00	748.00	766.00	784.00	802.00	821.00	840.00	853.00	866.00	878.00	891.00
9.0	766.00	784.00	802.00	821.00	840.00	860.00	880.00	901.00	921.00	935.00	949.00	964.00	978.00
9.5	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
10.0	840.00	860.00	880.00	901.00	921.00	943.00	965.00	988.00	1011.00	1026.00	1041.00	1057.00	1073.00
10.5	882.00	901.00	923.00	944.00	965.00	990.00	1013.00	1036.00	1061.00	1078.00	1092.00	1108.00	1123.00
11.0	921.00	943.00	965.00	988.00	1011.00	1035.00	1059.00	1084.00	1109.00	1126.00	1143.00	1160.00	1177.00
11.5	965.00	990.00	1013.00	1036.00	1061.00	1086.00	1110.00	1135.00	1163.00	1181.00	1198.00	1217.00	1235.00
12.0	1011.00	1035.00	1059.00	1084.00	1109.00	1135.00	1162.00	1189.00	1216.00	1235.00	1253.00	1272.00	1291.00
12.5	1061.00	1086.00	1110.00	1135.00	1163.00	1190.00	1219.00	1246.00	1275.00	1297.00	1312.00	1331.00	1354.00
13.0	1109.00	1135.00	1162.00	1189.00	1216.00	1245.00	1274.00	1304.00	1334.00	1354.00	1374.00	1395.00	1415.00
14.0	1216.00	1244.00	1272.00	1300.00	1327.00	1355.00	1383.00	1411.00	1439.00	1467.00	1494.00	1508.00	1522.00
15.0	1334.00	1362.00	1390.00	1418.00	1445.00	1473.00	1501.00	1529.00	1557.00	1584.00	1612.00	1626.00	1640.00
16.0	1464.00	1492.00	1520.00	1548.00	1576.00	1603.00	1631.00	1659.00	1687.00	1715.00	1742.00	1756.00	1770.00
17.0	1606.00	1633.00	1661.00	1689.00	1717.00	1745.00	1773.00	1800.00	1828.00	1856.00	1884.00	1898.00	1912.00
18.0	1761.00	1789.00	1817.00	1845.00	1873.00	1900.00	1928.00	1956.00	1984.00	2010.00	2040.00	2053.00	2067.00
19.0	1933.00	1961.00	1988.00	2016.00	2044.00	2072.00	2099.00	2127.00	2155.00	2183.00	2211.00	2225.00	2239.00
20.0	2120.00	2147.00	2175.00	2203.00	2231.00	2259.00	2287.00	2315.00	2342.00	2370.00	2398.00	2412.00	2426.00
21.0	2326.00	2393.00	2381.00	2409.00	2437.00	2465.00	2492.00	2520.00	2548.00	2576.00	2604.00	2618.00	2632.00
22.0	2551.00	2579.00	2607.00	2635.00	2663.00	2690.00	2718.00	2746.00	2774.00	2802.00	2830.00	2843.00	2857.00
23.0	2798.00	2826.00	2854.00	2882.00	2910.00	2937.00	2965.00	2993.00	3021.00	3049.00	3077.00	3090.00	3104.00
24.0	3070.00	3098.00	3126.00	3153.00	3181.00	3209.00	3237.00	3265.00	3292.00	3320.00	3348.00	3362.00	3376.00
25.0	3368.00	3396.00	3424.00	3452.00	3479.00	3507.00	3535.00	3563.00	3591.00	3618.00	3646.00	3660.00	3674.00

THE FIGURES IN THE BODY OF THE TABLE REPRESENT
DOLLAR AMOUNT OF INCREASE FROM ONE PAY MATRIX
TO ANOTHER

COMPARISON OF 1975 TO 1978

GRADE	1	2	3	4	5	6	7	8	9	10	11	12	13
1.0	.00	.00	802.00	841.00	850.00	836.00	847.00	853.00	866.00	916.00	923.00	932.00	941.00
1.5	.00	.00	802.00	841.00	850.00	836.00	847.00	853.00	866.00	916.00	923.00	932.00	941.00
2.0	817.00	836.00	847.00	853.00	866.00	874.00	884.00	900.00	913.00	963.00	972.00	981.00	990.00
2.5	856.00	874.00	886.00	896.00	913.00	925.00	939.00	945.00	960.00	1017.00	1025.00	1030.00	1041.00
3.0	898.00	915.00	929.00	948.00	960.00	976.00	995.00	985.00	1005.00	1070.00	1082.00	1092.00	1104.00
4.0	945.00	969.00	985.00	988.00	1005.00	1016.00	1034.00	1046.00	1068.00	1136.00	1149.00	1154.00	1167.00
5.0	996.00	1016.00	1034.00	1046.00	1064.00	1076.00	1095.00	1109.00	1129.00	1203.00	1216.00	1230.00	1243.00
6.0	1052.00	1076.00	1095.00	1109.00	1129.00	1137.00	1158.00	1173.00	1195.00	1278.00	1292.00	1307.00	1322.00
7.0	1114.00	1137.00	1158.00	1173.00	1195.00	1206.00	1229.00	1246.00	1270.00	1360.00	1377.00	1394.00	1409.00
8.0	1182.00	1206.00	1229.00	1246.00	1270.00	1282.00	1308.00	1328.00	1354.00	1452.00	1470.00	1482.00	1501.00
9.0	1256.00	1282.00	1308.00	1328.00	1354.00	1368.00	1396.00	1406.00	1435.00	1555.00	1574.00	1587.00	1608.00
9.5	1256.00	1282.00	1308.00	1328.00	1354.00	1368.00	1396.00	1406.00	1435.00	1555.00	1574.00	1587.00	1608.00
10.0	1256.00	1282.00	1308.00	1328.00	1354.00	1368.00	1396.00	1406.00	1435.00	1555.00	1574.00	1587.00	1608.00
10.5	1298.00	1327.00	1351.00	1367.00	1394.00	1413.00	1442.00	1459.00	1487.00	1611.00	1631.00	1643.00	1664.00
11.0	1337.00	1368.00	1396.00	1406.00	1435.00	1459.00	1489.00	1508.00	1540.00	1662.00	1684.00	1699.00	1721.00
11.5	1391.00	1413.00	1442.00	1459.00	1487.00	1513.00	1541.00	1560.00	1596.00	1721.00	1745.00	1761.00	1784.00
12.0	1427.00	1459.00	1489.00	1508.00	1540.00	1560.00	1593.00	1615.00	1650.00	1781.00	1805.00	1822.00	1846.00
12.5	1477.00	1513.00	1541.00	1560.00	1594.00	1613.00	1648.00	1674.00	1707.00	1851.00	1876.00	1890.00	1912.00
13.0	1525.00	1560.00	1593.00	1615.00	1650.00	1670.00	1704.00	1729.00	1767.00	1913.00	1939.00	1958.00	1983.00
14.0	1632.00	1679.00	1714.00	1750.00	1786.00	1820.00	1856.00	1892.00	1928.00	1963.00	1999.00	2018.00	2041.00
15.0	1750.00	1829.00	1845.00	1901.00	1936.00	1971.00	2007.00	2042.00	2078.00	2114.00	2149.00	2334.00	2352.00
16.0	1880.00	1995.00	2031.00	2067.00	2102.00	2138.00	2173.00	2209.00	2244.00	2280.00	2316.00	2500.00	2518.00
17.0	2022.00	2176.00	2211.00	2247.00	2283.00	2318.00	2354.00	2390.00	2424.00	2460.00	2496.00	2681.00	2699.00
18.0	2177.00	2375.00	2410.00	2446.00	2482.00	2517.00	2552.00	2588.00	2623.00	2657.00	2695.00	2881.00	2897.00
19.0	2349.00	2594.00	2630.00	2664.00	2700.00	2736.00	2772.00	2806.00	2842.00	2878.00	2913.00	3099.00	3117.00
20.0	2536.00	2833.00	2867.00	2903.00	2939.00	2975.00	3010.00	3046.00	3082.00	3116.00	3152.00	3338.00	3356.00
21.0	2742.00	3096.00	3171.00	3166.00	3202.00	3238.00	3273.00	3308.00	3344.00	3379.00	3415.00	3601.00	3619.00
22.0	2967.00	3383.00	3419.00	3455.00	3490.00	3526.00	3561.00	3597.00	3632.00	3668.00	3704.00	3889.00	3906.00
23.0	3214.00	3699.00	3734.00	3770.00	3806.00	3842.00	3876.00	3912.00	3948.00	3983.00	4019.00	4205.00	4222.00
24.0	3486.00	4046.00	4082.00	4117.00	4152.00	4188.00	4223.00	4259.00	4295.00	4330.00	4365.00	4551.00	4569.00
25.0	3784.00	4427.00	4462.00	4498.00	4534.00	4568.00	4604.00	4640.00	4675.00	4711.00	4746.00	4932.00	4949.00

THE FIGURES IN THE BODY OF THE TABLE REPRESENT THE DOLLAR AMOUNT OF INCREASE FROM ONE PAY MATRIX TO ANOTHER

COMPARISON OF 1975 TO 1979

GRADE	1	2	3	4	5	6	7	8	9	10	11	12	13
1.0	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
2.0	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
3.0	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
4.0	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
5.0	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
6.0	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
7.0	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
8.0	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
9.0	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
9.5	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
10.0	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
10.5	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
11.0	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
11.5	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
12.0	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
12.5	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
13.0	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
14.0	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
15.0	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
16.0	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
17.0	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
18.0	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
19.0	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
20.0	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
21.0	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
22.0	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
23.0	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
24.0	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
25.0	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

THE FIGURES IN THE BODY OF THE TABLE REPRESENT
DOLLAR AMOUNT OF INCREASE FROM ONE PAY MATRIX
TO ANOTHER

COMPARISON OF 1976 TO 1977

GRADE	1	2	3	4	5	6	7	8	9	10	11	12	13
1.0	.00	.00	177.00	180.00	184.00	188.00	192.00	197.00	202.00	205.00	208.00	212.00	214.00
2.0	184.00	188.00	192.00	197.00	202.00	207.00	212.00	216.00	222.00	225.00	228.00	231.00	235.00
3.0	202.00	207.00	212.00	216.00	222.00	226.00	232.00	236.00	243.00	245.00	250.00	253.00	258.00
4.0	222.00	226.00	232.00	238.00	243.00	249.00	254.00	260.00	267.00	271.00	274.00	278.00	282.00
5.0	243.00	249.00	254.00	260.00	267.00	273.00	280.00	286.00	292.00	297.00	301.00	305.00	310.00
6.0	267.00	273.00	280.00	286.00	292.00	299.00	307.00	313.00	321.00	325.00	330.00	335.00	340.00
7.0	282.00	289.00	307.00	313.00	321.00	328.00	336.00	344.00	352.00	357.00	363.00	368.00	373.00
8.0	321.00	328.00	336.00	344.00	352.00	360.00	368.00	377.00	386.00	392.00	398.00	403.00	409.00
9.0	352.00	360.00	368.00	377.00	386.00	395.00	404.00	414.00	423.00	429.00	436.00	443.00	449.00
9.5	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
10.0	386.00	395.00	404.00	414.00	423.00	433.00	444.00	454.00	464.00	471.00	478.00	486.00	493.00
10.5	405.00	414.00	424.00	435.00	443.00	455.00	466.00	477.00	487.00	495.00	501.00	509.00	516.00
11.0	423.00	433.00	444.00	454.00	464.00	475.00	486.00	498.00	509.00	517.00	525.00	533.00	541.00
11.5	443.00	455.00	466.00	477.00	487.00	499.00	509.00	522.00	535.00	543.00	551.00	559.00	567.00
12.0	464.00	475.00	486.00	498.00	509.00	521.00	534.00	546.00	559.00	568.00	576.00	585.00	593.00
12.5	487.00	499.00	509.00	522.00	535.00	548.00	559.00	572.00	587.00	595.00	603.00	611.00	622.00
13.0	509.00	521.00	534.00	546.00	559.00	572.00	585.00	599.00	613.00	622.00	631.00	641.00	650.00
14.0	559.00	572.00	585.00	598.00	609.00	622.00	635.00	648.00	661.00	674.00	686.00	693.00	699.00
15.0	613.00	626.00	639.00	652.00	664.00	677.00	690.00	703.00	716.00	728.00	741.00	747.00	753.00
16.0	673.00	685.00	698.00	711.00	724.00	736.00	749.00	762.00	775.00	788.00	800.00	807.00	813.00
17.0	738.00	750.00	763.00	776.00	789.00	802.00	815.00	827.00	840.00	853.00	866.00	872.00	879.00
18.0	809.00	822.00	835.00	848.00	861.00	873.00	886.00	899.00	912.00	925.00	938.00	943.00	950.00
19.0	888.00	901.00	913.00	926.00	939.00	952.00	964.00	977.00	990.00	1003.00	1016.00	1022.00	1029.00
20.0	974.00	986.00	999.00	1012.00	1025.00	1038.00	1051.00	1064.00	1076.00	1089.00	1102.00	1108.00	1115.00
21.0	1069.00	1081.00	1094.00	1107.00	1120.00	1133.00	1145.00	1158.00	1171.00	1184.00	1197.00	1203.00	1210.00
22.0	1172.00	1185.00	1198.00	1211.00	1224.00	1236.00	1249.00	1262.00	1275.00	1288.00	1301.00	1306.00	1313.00
23.0	1285.00	1298.00	1311.00	1324.00	1337.00	1349.00	1362.00	1375.00	1388.00	1401.00	1414.00	1420.00	1426.00
24.0	1411.00	1424.00	1437.00	1449.00	1461.00	1474.00	1487.00	1500.00	1512.00	1525.00	1538.00	1545.00	1551.00
25.0	1547.00	1560.00	1573.00	1586.00	1598.00	1611.00	1624.00	1637.00	1650.00	1662.00	1675.00	1682.00	1688.00

THE FIGURES IN THE BODY OF THE TABLE REPRESENT THE

DOLLAR AMOUNT OF INCREASE FROM ONE PAY MATRIX

TO ANOTHER

COMPARISON OF 1977 TO 1978

GRADE	1	2	3	4	5	6	7	8	9	10	11	12	13
1.0	416.00	422.00	428.00	448.00	449.00	426.00	428.00	424.00	426.00	470.00	470.00	472.00	475.00
2.0	416.00	426.00	428.00	424.00	426.00	424.00	425.00	429.00	431.00	474.00	476.00	478.00	479.00
3.0	416.00	424.00	425.00	429.00	431.00	422.00	424.00	422.00	431.00	482.00	481.00	478.00	480.00
4.0	416.00	422.00	424.00	428.00	431.00	428.00	432.00	428.00	425.00	481.00	485.00	486.00	489.00
5.0	416.00	428.00	432.00	422.00	425.00	422.00	426.00	424.00	428.00	490.00	494.00	486.00	492.00
6.0	416.00	422.00	426.00	424.00	428.00	423.00	428.00	427.00	431.00	495.00	497.00	501.00	503.00
7.0	416.00	425.00	428.00	427.00	431.00	423.00	427.00	425.00	429.00	501.00	503.00	506.00	510.00
8.0	416.00	423.00	427.00	425.00	429.00	422.00	427.00	425.00	430.00	507.00	511.00	516.00	518.00
9.0	416.00	422.00	427.00	425.00	430.00	422.00	428.00	427.00	433.00	517.00	521.00	518.00	523.00
9.5	416.00	422.00	428.00	427.00	433.00	425.00	431.00	418.00	424.00	529.00	533.00	530.00	535.00
10.0	416.00	426.00	428.00	423.00	429.00	423.00	429.00	423.00	426.00	533.00	539.00	535.00	541.00
10.5	416.00	425.00	431.00	418.00	424.00	424.00	430.00	424.00	431.00	536.00	541.00	539.00	544.00
11.0	416.00	423.00	429.00	423.00	426.00	427.00	431.00	425.00	433.00	540.00	547.00	544.00	549.00
12.0	416.00	424.00	430.00	424.00	431.00	425.00	431.00	426.00	434.00	546.00	552.00	550.00	555.00
12.5	416.00	427.00	431.00	425.00	433.00	423.00	429.00	428.00	432.00	554.00	558.00	559.00	558.00
13.0	416.00	425.00	431.00	426.00	434.00	422.00	430.00	425.00	433.00	559.00	565.00	563.00	570.00
14.0	416.00	435.00	442.00	450.00	459.00	465.00	473.00	481.00	489.00	496.00	505.00	506.00	507.00
15.0	416.00	467.00	475.00	483.00	491.00	498.00	506.00	513.00	521.00	530.00	537.00	540.00	542.00
16.0	416.00	503.00	511.00	519.00	526.00	535.00	542.00	550.00	557.00	565.00	574.00	574.00	578.00
17.0	416.00	543.00	550.00	558.00	566.00	573.00	581.00	590.00	596.00	604.00	612.00	612.00	617.00
18.0	416.00	586.00	593.00	601.00	609.00	617.00	624.00	632.00	639.00	647.00	655.00	655.00	660.00
19.0	416.00	633.00	642.00	648.00	656.00	664.00	673.00	679.00	687.00	695.00	702.00	702.00	707.00
20.0	416.00	686.00	692.00	700.00	708.00	716.00	723.00	731.00	740.00	746.00	754.00	754.00	759.00
21.0	416.00	703.00	709.00	717.00	725.00	733.00	741.00	749.00	757.00	765.00	773.00	781.00	789.00
22.0	416.00	804.00	812.00	820.00	827.00	836.00	843.00	851.00	858.00	866.00	874.00	882.00	890.00
23.0	416.00	873.00	880.00	888.00	896.00	905.00	911.00	919.00	927.00	934.00	942.00	949.00	957.00
24.0	416.00	948.00	956.00	964.00	971.00	979.00	986.00	994.00	1003.00	1010.00	1017.00	1024.00	1031.00
25.0	416.00	1031.00	1038.00	1046.00	1055.00	1061.00	1069.00	1077.00	1084.00	1093.00	1100.00	1107.00	1114.00

THE FIGURES IN THE BODY OF THE TABLE REPRESENT THE DOLLAR AMOUNT OF INCREASE FROM ONE PAY MATRIX TO ANOTHER

COMPARISON OF 1978 TO 1979

GRADE	1	2	3	4	5	6	7	8	9	10	11	12	13
1.0	458.00	468.00	458.00	468.00	501.00	502.00	479.00	481.00	477.00	479.00	524.00	524.00	526.00
2.0	458.00	468.00	479.00	481.00	477.00	479.00	477.00	478.00	482.00	484.00	528.00	530.00	532.00
3.0	458.00	468.00	477.00	481.00	482.00	484.00	475.00	477.00	481.00	484.00	530.00	536.00	538.00
4.0	458.00	469.00	475.00	477.00	481.00	484.00	481.00	485.00	475.00	478.00	535.00	540.00	540.00
5.0	458.00	469.00	481.00	485.00	475.00	478.00	475.00	479.00	477.00	481.00	544.00	549.00	544.00
6.0	458.00	469.00	475.00	479.00	477.00	481.00	478.00	481.00	480.00	484.00	550.00	552.00	556.00
7.0	458.00	469.00	478.00	481.00	480.00	484.00	476.00	480.00	478.00	482.00	556.00	558.00	561.00
8.0	458.00	469.00	476.00	480.00	478.00	482.00	475.00	480.00	478.00	484.00	562.00	566.00	571.00
9.0	458.00	469.00	475.00	480.00	478.00	484.00	475.00	481.00	480.00	486.00	572.00	576.00	573.00
9.5	458.00	469.00	475.00	480.00	478.00	486.00	475.00	481.00	480.00	486.00	572.00	576.00	573.00
10.0	458.00	469.00	475.00	481.00	480.00	486.00	478.00	484.00	471.00	477.00	584.00	589.00	585.00
10.5	458.00	468.00	479.00	481.00	476.00	482.00	476.00	482.00	476.00	479.00	588.00	595.00	590.00
11.0	458.00	469.00	478.00	484.00	471.00	477.00	477.00	483.00	477.00	484.00	591.00	597.00	595.00
11.5	458.00	469.00	476.00	482.00	476.00	479.00	480.00	484.00	478.00	486.00	595.00	602.00	599.00
12.0	458.00	469.00	477.00	483.00	477.00	484.00	478.00	485.00	479.00	487.00	601.00	608.00	606.00
12.5	458.00	468.00	480.00	484.00	478.00	486.00	476.00	482.00	481.00	485.00	610.00	614.00	615.00
13.0	458.00	469.00	478.00	485.00	479.00	487.00	474.00	483.00	478.00	486.00	615.00	622.00	619.00
14.0	458.00	468.00	488.00	495.00	503.00	513.00	519.00	527.00	535.00	544.00	551.00	559.00	735.00
15.0	458.00	469.00	521.00	529.00	538.00	546.00	552.00	561.00	568.00	576.00	585.00	593.00	738.00
16.0	458.00	469.00	558.00	566.00	575.00	581.00	590.00	597.00	606.00	613.00	621.00	631.00	805.00
17.0	458.00	469.00	599.00	606.00	614.00	623.00	629.00	637.00	647.00	653.00	661.00	670.00	845.00
18.0	458.00	468.00	643.00	650.00	658.00	667.00	675.00	681.00	690.00	697.00	705.00	713.00	891.00
19.0	458.00	469.00	691.00	701.00	706.00	714.00	722.00	732.00	738.00	746.00	755.00	762.00	937.00
20.0	458.00	469.00	746.00	751.00	759.00	767.00	776.00	783.00	791.00	801.00	807.00	815.00	970.00
21.0	458.00	469.00	803.00	818.00	826.00	834.00	842.00	849.00	858.00	865.00	873.00	883.00	1049.00
22.0	458.00	469.00	866.00	874.00	883.00	890.00	898.00	905.00	914.00	921.00	929.00	938.00	1114.00
23.0	458.00	469.00	937.00	944.00	952.00	960.00	970.00	978.00	983.00	992.00	999.00	1007.00	1184.00
24.0	458.00	469.00	1013.00	1022.00	1030.00	1037.00	1045.00	1052.00	1060.00	1069.00	1077.00	1084.00	1260.00
25.0	458.00	468.00	1098.00	1105.00	1113.00	1123.00	1129.00	1137.00	1146.00	1153.00	1162.00	1168.00	1345.00

THE FIGURES IN THE BODY OF THE TABLE REPRESENT THE DOLLAR AMOUNT OF INCREASE FROM ONE PAY MATRIX TO ANOTHER

COMPARISON FOR FY75

GRADE	1	2	3	4	5	6	7	8	9	10	11	12	13
1.0	.000	.000	0.000	.019	.018	.024	.023	.024	.023	.015	.015	.015	.015
2.0	.000	.000	.000	.024	.023	.024	.023	.023	.022	.015	.015	.015	.014
3.0	.000	.024	.023	.023	.022	.023	.024	.023	.023	.015	.015	.015	.015
4.0	.000	.024	.024	.023	.023	.023	.023	.024	.024	.015	.015	.015	.015
5.0	.000	.023	.023	.024	.024	.024	.023	.024	.023	.015	.015	.015	.015
6.0	.000	.024	.023	.024	.023	.024	.023	.023	.023	.015	.015	.015	.014
7.0	.000	.024	.023	.023	.023	.024	.023	.024	.023	.015	.015	.015	.015
8.0	.000	.024	.023	.024	.023	.024	.023	.024	.023	.015	.015	.015	.015
9.0	.000	.024	.023	.024	.023	.024	.023	.024	.023	.015	.015	.015	.015
10.0	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
10.5	.000	.024	.023	.023	.023	.024	.023	.024	.024	.015	.015	.015	.015
11.0	.000	.024	.023	.024	.023	.024	.023	.024	.023	.015	.015	.015	.015
11.5	.000	.024	.023	.024	.023	.024	.023	.024	.023	.015	.015	.015	.015
12.0	.000	.024	.023	.024	.023	.024	.023	.024	.023	.015	.015	.015	.015
12.5	.000	.023	.023	.024	.023	.024	.023	.023	.023	.015	.015	.015	.015
13.0	.000	.024	.023	.023	.023	.024	.023	.024	.023	.015	.015	.015	.015
14.0	.000	.023	.022	.022	.021	.021	.021	.020	.020	.015	.015	.015	.015
15.0	.000	.021	.020	.020	.020	.019	.019	.020	.020	.019	.019	.009	.009
16.0	.000	.019	.019	.018	.018	.018	.017	.017	.018	.018	.018	.009	.009
17.0	.000	.017	.017	.017	.016	.016	.016	.016	.015	.015	.016	.008	.008
18.0	.000	.016	.016	.015	.015	.015	.015	.015	.014	.015	.015	.007	.007
19.0	.000	.014	.014	.014	.014	.014	.013	.014	.014	.014	.014	.007	.007
20.0	.000	.013	.013	.013	.013	.012	.012	.013	.013	.013	.013	.006	.006
21.0	.000	.012	.012	.012	.012	.011	.011	.012	.012	.012	.012	.006	.006
22.0	.000	.011	.011	.011	.011	.010	.010	.011	.011	.011	.011	.005	.005
23.0	.000	.010	.010	.010	.010	.010	.009	.010	.010	.010	.010	.005	.005
24.0	.000	.009	.009	.009	.009	.009	.009	.009	.009	.009	.009	.005	.005
25.0	.000	.008	.008	.008	.008	.008	.008	.008	.008	.008	.008	.004	.004

THE FIGURES IN THE BODY OF THE TABLE REPRESENT THE PERCENT OF INCREASE FROM ONE STEP TO ANOTHER (WITHIN THE SAME MATRIX)

COMPARISON FOR FY76

GRADE	1	2	3	4	5	6	7	8	9	10	11	12	13
1.0	.000	.000	0.000	.019	.018	.024	.023	.024	.023	.015	.015	.015	.015
2.0	.000	.024	.023	.024	.023	.024	.024	.023	.022	.015	.015	.015	.014
3.0	.000	.024	.024	.023	.023	.024	.024	.023	.023	.015	.014	.015	.015
4.0	.000	.024	.024	.023	.023	.023	.023	.024	.024	.015	.015	.015	.015
5.0	.000	.023	.023	.024	.024	.024	.023	.024	.023	.015	.015	.015	.015
6.0	.000	.024	.023	.023	.023	.024	.023	.023	.023	.015	.015	.015	.015
7.0	.000	.024	.023	.023	.023	.024	.023	.024	.023	.015	.015	.015	.015
8.0	.000	.024	.023	.024	.023	.024	.023	.024	.023	.015	.015	.015	.015
9.0	.000	.024	.023	.024	.023	.024	.023	.023	.023	.015	.015	.015	.015
9.5	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
10.0	.000	.024	.023	.023	.023	.024	.023	.024	.024	.015	.015	.015	.015
10.5	.000	.024	.023	.024	.023	.024	.023	.024	.024	.015	.015	.015	.015
11.0	.000	.024	.023	.024	.024	.024	.023	.023	.023	.015	.015	.015	.015
11.5	.000	.024	.023	.024	.024	.023	.023	.023	.023	.015	.015	.015	.015
12.0	.000	.024	.023	.024	.023	.024	.023	.023	.023	.015	.015	.015	.015
12.5	.000	.023	.023	.023	.023	.024	.023	.023	.023	.015	.015	.015	.015
13.0	.000	.024	.023	.023	.023	.024	.023	.024	.023	.015	.015	.015	.015
14.0	.000	.023	.022	.022	.021	.021	.021	.020	.020	.019	.019	.009	.009
15.0	.000	.021	.020	.020	.020	.019	.019	.019	.018	.018	.018	.009	.008
16.0	.000	.019	.019	.018	.018	.018	.017	.017	.017	.016	.016	.008	.007
17.0	.000	.017	.017	.017	.016	.016	.016	.016	.015	.015	.015	.007	.007
18.0	.000	.016	.016	.015	.015	.015	.015	.014	.014	.014	.014	.007	.007
19.0	.000	.014	.014	.014	.014	.014	.013	.013	.013	.013	.013	.006	.006
20.0	.000	.013	.013	.013	.013	.012	.012	.012	.012	.012	.012	.006	.006
21.0	.000	.012	.012	.012	.012	.011	.011	.011	.011	.011	.011	.005	.005
22.0	.000	.011	.011	.011	.011	.010	.010	.010	.010	.010	.010	.005	.005
23.0	.000	.010	.010	.010	.010	.010	.009	.009	.009	.009	.009	.005	.005
24.0	.000	.009	.009	.009	.009	.009	.009	.009	.009	.008	.008	.004	.004
25.0	.000	.008	.008	.008	.008	.008	.008	.008	.008	.008	.008	.004	.004

THE FIGURES IN THE BODY OF THE TABLE REPRESENT THE PERCENT OF INCREASE FROM ONE STEP TO ANOTHER (WITHIN THE SAME MATRIX)

COMPARISON FOR FY77

GRADE	1	2	3	4	5	6	7	8	9	10	11	12	13
1.0	.000	.000	0.000	.019	.019	.024	.023	.024	.024	.015	.015	.015	.014
2.0	.000	.024	.023	.024	.024	.024	.024	.023	.023	.023	.015	.015	.014
3.0	.000	.024	.024	.023	.023	.024	.024	.023	.023	.014	.015	.015	.015
4.0	.000	.024	.024	.023	.023	.023	.023	.024	.024	.015	.015	.015	.015
5.0	.000	.023	.023	.024	.024	.024	.023	.024	.023	.015	.015	.015	.015
6.0	.000	.024	.023	.024	.023	.024	.023	.023	.023	.015	.015	.015	.015
7.0	.000	.024	.023	.023	.023	.024	.023	.024	.023	.015	.015	.015	.015
8.0	.000	.024	.023	.024	.023	.024	.023	.024	.023	.015	.015	.015	.015
9.0	.000	.024	.023	.024	.023	.024	.023	.023	.023	.015	.015	.015	.015
9.5	.000	.024	.023	.024	.023	.024	.023	.024	.023	.015	.015	.015	.015
10.0	.000	.024	.023	.023	.023	.024	.023	.024	.024	.015	.015	.015	.015
10.5	.000	.024	.023	.024	.023	.024	.023	.024	.024	.015	.015	.015	.015
11.0	.000	.024	.023	.024	.024	.024	.023	.024	.024	.015	.015	.015	.015
11.5	.000	.024	.023	.024	.024	.023	.023	.024	.023	.015	.015	.015	.015
12.0	.000	.024	.023	.024	.023	.024	.023	.023	.023	.015	.015	.015	.015
12.5	.000	.023	.023	.024	.023	.024	.023	.023	.023	.015	.015	.015	.015
13.0	.000	.024	.023	.023	.023	.024	.023	.024	.023	.015	.015	.015	.015
14.0	.000	.023	.022	.022	.021	.021	.021	.020	.020	.019	.019	.009	.009
15.0	.000	.021	.020	.020	.020	.019	.019	.017	.018	.018	.018	.009	.009
16.0	.000	.019	.019	.020	.018	.018	.017	.017	.017	.016	.016	.008	.008
17.0	.000	.017	.017	.017	.016	.016	.016	.016	.015	.015	.015	.007	.007
18.0	.000	.016	.016	.015	.015	.015	.015	.014	.014	.014	.014	.007	.007
19.0	.000	.014	.014	.014	.014	.014	.013	.013	.013	.013	.013	.006	.006
20.0	.000	.013	.013	.013	.013	.012	.012	.012	.012	.012	.012	.006	.006
21.0	.000	.013	.013	.012	.012	.011	.011	.011	.011	.011	.011	.005	.005
22.0	.000	.011	.011	.011	.011	.010	.010	.010	.010	.010	.010	.005	.005
23.0	.000	.010	.010	.010	.010	.010	.009	.009	.009	.009	.009	.004	.005
24.0	.000	.009	.009	.009	.009	.009	.009	.009	.008	.008	.008	.004	.004
25.0	.000	.008	.008	.008	.008	.008	.008	.008	.008	.008	.008	.004	.004

THE FIGURES IN THE BODY OF THE TABLE REPRESENT THE PERCENT OF INCREASE FROM ONE STEP TO ANOTHER (WITHIN THE SAME MATRIX)

COMPARISON FOR FY78

GRADE	1	2	3	4	5	6	7	8	9	10	11	12	13
1.0	.000	.000	0.000	.024	.017	.017	.021	.021	.022	.022	.014	.014	.014
2.0	.000	.024	.021	.021	.022	.022	.022	.022	.021	.021	.014	.014	.014
3.0	.000	.024	.022	.022	.021	.021	.022	.022	.023	.021	.014	.014	.014
4.0	.000	.023	.022	.022	.023	.022	.023	.022	.022	.022	.015	.014	.015
5.0	.000	.023	.022	.021	.023	.022	.022	.022	.022	.022	.014	.014	.014
6.0	.000	.023	.023	.022	.022	.022	.022	.022	.023	.022	.014	.014	.014
7.0	.000	.023	.022	.022	.022	.022	.023	.022	.023	.022	.014	.014	.014
8.0	.000	.024	.023	.022	.023	.023	.023	.022	.022	.022	.015	.014	.015
9.0	.000	.024	.023	.022	.023	.022	.023	.022	.023	.022	.014	.014	.015
10.0	.000	.023	.023	.022	.022	.022	.023	.022	.023	.023	.014	.014	.015
10.5	.000	.024	.023	.022	.023	.022	.023	.022	.023	.023	.014	.014	.015
11.0	.000	.024	.023	.022	.023	.023	.023	.022	.023	.022	.015	.014	.015
11.5	.000	.023	.023	.022	.023	.023	.023	.022	.023	.022	.015	.014	.015
12.0	.000	.024	.023	.022	.023	.022	.023	.022	.023	.022	.015	.014	.015
12.5	.000	.024	.023	.022	.023	.022	.023	.023	.023	.022	.015	.014	.015
13.0	.000	.024	.023	.022	.023	.022	.023	.023	.023	.022	.015	.014	.015
14.0	.000	.024	.022	.022	.021	.021	.020	.020	.020	.019	.019	.018	.009
15.0	.000	.023	.020	.020	.019	.019	.019	.018	.018	.018	.017	.016	.008
16.0	.000	.023	.019	.018	.018	.018	.017	.017	.017	.016	.016	.015	.007
17.0	.000	.023	.017	.017	.016	.016	.016	.016	.015	.014	.014	.014	.007
18.0	.000	.024	.015	.015	.015	.015	.015	.014	.014	.013	.013	.013	.006
19.0	.000	.023	.014	.014	.014	.014	.013	.013	.013	.013	.013	.013	.006
20.0	.000	.024	.013	.013	.013	.012	.012	.012	.012	.012	.012	.012	.006
21.0	.000	.024	.013	.010	.012	.011	.011	.011	.011	.011	.011	.011	.005
22.0	.000	.023	.011	.011	.011	.010	.010	.010	.010	.010	.010	.010	.005
23.0	.000	.024	.010	.010	.010	.010	.009	.009	.009	.009	.009	.008	.004
24.0	.000	.024	.009	.009	.009	.009	.009	.009	.009	.008	.008	.008	.004
25.0	.000	.024	.008	.008	.008	.008	.008	.008	.008	.008	.008	.008	.004

THE FIGURES IN THE BODY OF THE TABLE REPRESENT THE PERCENT OF INCREASE FROM ONE STEP TO ANOTHER (WITHIN THE SAME MATRIX)

COMPARISON FOR FY79

GRADE	1	2	3	4	5	6	7	8	9	10	11	12	13
1.0	.000	.000	0.000	.023	.022	.016	.016	.020	.020	.020	.020	.013	.013
2.0	.000	.023	.022	.020	.020	.020	.020	.020	.020	.020	.019	.013	.013
3.0	.000	.023	.022	.020	.020	.020	.019	.021	.021	.020	.020	.014	.013
4.0	.000	.024	.022	.021	.021	.020	.020	.020	.020	.021	.021	.013	.013
5.0	.000	.024	.022	.020	.020	.021	.021	.021	.021	.021	.021	.014	.014
6.0	.000	.023	.022	.021	.021	.021	.021	.021	.021	.021	.021	.014	.014
7.0	.000	.024	.022	.021	.021	.021	.021	.022	.021	.021	.021	.014	.014
8.0	.000	.024	.022	.022	.021	.021	.021	.022	.021	.022	.021	.014	.014
9.0	.000	.024	.022	.022	.021	.022	.021	.022	.021	.022	.021	.014	.014
9.5	.000	.024	.022	.022	.021	.022	.021	.022	.021	.022	.021	.014	.014
10.0	.000	.023	.022	.022	.021	.022	.021	.022	.021	.022	.022	.014	.014
10.5	.000	.023	.023	.022	.022	.022	.022	.022	.021	.022	.022	.014	.014
11.0	.000	.024	.023	.022	.022	.022	.022	.022	.022	.022	.022	.014	.014
11.5	.000	.023	.023	.022	.022	.022	.022	.022	.022	.022	.022	.014	.014
12.0	.000	.024	.023	.022	.022	.022	.022	.022	.022	.022	.022	.014	.014
12.5	.000	.023	.023	.022	.022	.022	.022	.022	.022	.022	.022	.014	.014
13.0	.000	.024	.023	.022	.022	.022	.022	.022	.022	.022	.022	.014	.014
14.0	.000	.023	.023	.022	.022	.021	.020	.020	.020	.019	.018	.018	.018
15.0	.000	.023	.023	.020	.019	.021	.020	.018	.018	.018	.017	.017	.017
16.0	.000	.023	.023	.018	.018	.017	.017	.017	.017	.016	.016	.016	.015
17.0	.000	.023	.023	.017	.016	.016	.016	.016	.015	.015	.015	.015	.014
18.0	.000	.023	.023	.015	.015	.015	.014	.014	.014	.014	.014	.014	.013
19.0	.000	.024	.023	.014	.014	.014	.013	.013	.013	.013	.013	.012	.012
20.0	.000	.024	.023	.013	.013	.012	.012	.012	.012	.012	.012	.012	.011
21.0	.000	.024	.023	.013	.010	.011	.011	.011	.011	.011	.011	.011	.011
22.0	.000	.023	.023	.011	.011	.010	.010	.010	.010	.010	.010	.010	.010
23.0	.000	.024	.023	.010	.010	.010	.009	.009	.009	.009	.009	.009	.009
24.0	.000	.024	.023	.009	.009	.009	.009	.009	.008	.008	.008	.008	.008
25.0	.000	.023	.023	.008	.008	.008	.008	.008	.008	.008	.008	.008	.008

THE FIGURES IN THE BODY OF THE TABLE REPRESENT THE
PERCENT OF INCREASE FROM ONE STEP TO ANOTHER
(WITHIN THE SAME MATRIX)

COMPARISON FOR FY75

GRADE	1	2	3	4	5	6	7	8	9	10	11	12	13
2.0	0.000	0.000	.086	.092	.097	.098	.098	.097	.096	.096	.096	.096	.095
3.0	.097	.098	.098	.097	.096	.096	.097	.097	.097	.097	.096	.097	.098
4.0	.096	.096	.097	.097	.097	.096	.095	.096	.097	.098	.098	.098	.097
5.0	.097	.096	.095	.096	.097	.098	.099	.098	.098	.097	.097	.097	.098
6.0	.097	.098	.099	.098	.098	.097	.097	.097	.096	.096	.097	.096	.096
7.0	.098	.097	.097	.097	.096	.096	.097	.097	.097	.097	.098	.098	.098
8.0	.096	.096	.097	.097	.097	.097	.097	.097	.097	.097	.097	.097	.097
9.0	.097	.097	.097	.097	.097	.097	.097	.097	.097	.097	.096	.097	.097
9.5	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
10.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
10.5	.048	.048	.048	.049	.049	.049	.049	.049	.049	.049	.049	.049	.049
11.0	.046	.046	.046	.046	.047	.047	.047	.046	.046	.046	.046	.046	.046
11.5	.049	.049	.049	.049	.049	.048	.048	.048	.048	.048	.048	.048	.048
12.0	.047	.047	.047	.046	.046	.046	.046	.046	.046	.046	.046	.046	.046
12.5	.049	.048	.048	.048	.048	.048	.048	.048	.049	.048	.048	.048	.048
13.0	.046	.046	.046	.046	.046	.046	.046	.046	.046	.046	.046	.046	.046
14.0	.096	.096	.095	.093	.091	.088	.086	.082	.078	.083	.087	.081	.075
15.0	.097	.095	.093	.091	.089	.087	.085	.084	.082	.080	.079	.078	.077
16.0	.098	.096	.094	.092	.090	.088	.087	.085	.084	.082	.081	.080	.080
17.0	.097	.095	.093	.091	.090	.089	.088	.087	.085	.084	.083	.082	.081
18.0	.097	.095	.094	.092	.091	.089	.088	.087	.086	.085	.084	.083	.083
19.0	.097	.096	.094	.093	.092	.090	.089	.088	.086	.085	.084	.083	.083
20.0	.097	.095	.094	.093	.091	.090	.089	.088	.087	.086	.085	.085	.085
21.0	.097	.096	.095	.093	.092	.091	.090	.089	.088	.087	.086	.085	.085
22.0	.097	.096	.095	.094	.093	.092	.091	.090	.089	.088	.087	.086	.086
23.0	.097	.096	.095	.094	.093	.092	.091	.090	.089	.088	.087	.086	.086
24.0	.097	.096	.095	.094	.093	.092	.091	.090	.089	.088	.087	.086	.086
25.0	.097	.096	.095	.094	.093	.092	.091	.090	.089	.088	.087	.086	.086

THE FIGURES IN THE BODY OF THE TABLE REPRESENT THE PERCENT OF INCREASE FROM ONE GRADE TO ANOTHER (WITHIN THE SAME MATRIX)

COMPARISON FOR FY76

GRADE	1	2	3	4	5	6	7	8	9	10	11	12	13
2.0	0.000	0.000	.086	.092	.097	.098	.098	.097	.096	.096	.096	.096	.095
3.0	.097	.098	.098	.097	.096	.097	.097	.097	.097	.097	.096	.097	.098
4.0	.096	.097	.097	.097	.097	.098	.095	.096	.097	.097	.098	.098	.097
5.0	.097	.096	.095	.096	.097	.098	.099	.098	.098	.097	.097	.097	.098
6.0	.097	.098	.099	.098	.098	.097	.097	.097	.096	.097	.097	.096	.096
7.0	.098	.097	.097	.097	.096	.097	.097	.097	.097	.097	.097	.098	.098
8.0	.096	.097	.097	.097	.097	.097	.097	.097	.097	.097	.097	.097	.097
9.0	.097	.097	.097	.097	.097	.097	.097	.097	.097	.097	.096	.097	.097
9.5	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
10.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
10.5	.049	.048	.048	.048	.049	.049	.049	.049	.049	.049	.049	.049	.049
11.0	.046	.046	.046	.046	.047	.047	.047	.046	.046	.046	.046	.046	.046
11.5	.049	.049	.049	.049	.049	.048	.048	.048	.048	.048	.048	.048	.048
12.0	.047	.047	.047	.046	.046	.046	.046	.046	.046	.046	.046	.046	.046
12.5	.049	.048	.048	.048	.048	.048	.049	.048	.049	.048	.048	.048	.048
13.0	.046	.046	.046	.046	.046	.046	.046	.046	.046	.046	.046	.046	.046
14.0	.096	.095	.095	.093	.092	.089	.086	.082	.078	.083	.087	.081	.075
15.0	.097	.095	.093	.091	.089	.087	.085	.084	.082	.080	.079	.078	.077
16.0	.098	.096	.094	.092	.090	.088	.087	.085	.084	.082	.081	.080	.080
17.0	.097	.095	.093	.091	.090	.088	.087	.085	.084	.082	.081	.080	.080
18.0	.097	.095	.094	.092	.091	.089	.088	.087	.085	.084	.083	.082	.081
19.0	.097	.096	.094	.093	.092	.090	.089	.088	.086	.085	.084	.083	.083
20.0	.097	.095	.094	.093	.091	.089	.089	.088	.087	.086	.085	.084	.083
21.0	.097	.096	.095	.093	.092	.091	.090	.089	.088	.087	.086	.085	.085
22.0	.097	.096	.095	.094	.093	.092	.091	.090	.089	.088	.087	.086	.086
23.0	.097	.096	.095	.094	.093	.092	.091	.090	.089	.088	.087	.086	.086
24.0	.097	.096	.095	.094	.093	.092	.091	.090	.089	.088	.088	.087	.087
25.0	.097	.096	.095	.095	.094	.093	.092	.091	.090	.089	.089	.088	.088

THE FIGURES IN THE BODY OF THE TABLE REPRESENT THE PERCENT OF INCREASE FROM ONE GRADE TO ANOTHER (WITHIN THE SAME MATRIX)

COMPARISON FOR FY77

GRADE	1	2	3	4	5	6	7	8	9	10	11	12	13
2.0	0.000	0.000	.086	.092	.097	.098	.098	.097	.096	.096	.096	.095	.096
3.0	.097	.098	.098	.097	.096	.096	.097	.096	.097	.098	.096	.097	.098
4.0	.096	.097	.097	.097	.097	.096	.095	.096	.097	.097	.097	.097	.098
5.0	.097	.098	.095	.096	.097	.098	.097	.098	.096	.096	.097	.096	.096
6.0	.097	.098	.099	.098	.098	.097	.097	.097	.097	.097	.098	.098	.098
7.0	.098	.097	.097	.097	.096	.097	.097	.097	.097	.097	.097	.097	.097
8.0	.096	.097	.097	.097	.096	.097	.097	.097	.097	.097	.097	.097	.097
9.0	.097	.097	.097	.097	.097	.097	.097	.097	.097	.097	.096	.097	.097
9.5	.049	.049	.049	.048	.048	.048	.048	.049	.049	.049	.049	.049	.048
10.0	.046	.046	.046	.046	.046	.046	.046	.046	.047	.046	.046	.046	.046
10.5	.049	.048	.048	.049	.049	.049	.049	.049	.049	.049	.049	.049	.047
11.0	.046	.046	.046	.046	.047	.047	.046	.046	.046	.046	.046	.048	.048
11.5	.049	.049	.049	.049	.049	.048	.048	.048	.048	.048	.048	.048	.048
12.0	.047	.047	.046	.046	.046	.046	.046	.046	.046	.046	.046	.046	.046
12.5	.049	.048	.048	.048	.048	.048	.048	.048	.049	.048	.048	.048	.048
13.0	.046	.046	.046	.046	.046	.046	.046	.046	.046	.046	.046	.046	.046
13.5	.096	.096	.095	.093	.091	.088	.086	.082	.078	.083	.087	.081	.075
14.0	.097	.095	.093	.091	.089	.088	.085	.084	.082	.080	.079	.078	.077
15.0	.098	.096	.094	.092	.090	.088	.087	.085	.084	.082	.081	.080	.080
16.0	.097	.095	.093	.091	.090	.088	.087	.085	.084	.082	.081	.080	.080
17.0	.097	.095	.094	.092	.091	.089	.088	.087	.085	.084	.083	.082	.081
18.0	.097	.095	.094	.093	.091	.090	.089	.088	.086	.085	.084	.083	.083
19.0	.097	.096	.094	.093	.091	.090	.089	.088	.087	.086	.085	.084	.084
20.0	.097	.095	.094	.093	.091	.090	.089	.089	.088	.087	.086	.085	.085
21.0	.097	.097	.095	.094	.093	.092	.091	.090	.089	.088	.087	.086	.086
22.0	.097	.094	.095	.094	.093	.092	.091	.090	.089	.088	.087	.086	.086
23.0	.097	.096	.095	.094	.093	.092	.091	.090	.089	.088	.087	.086	.086
24.0	.097	.096	.095	.094	.093	.092	.092	.091	.090	.089	.088	.088	.087
25.0	.097	.096	.095	.095	.094	.093	.092	.091	.091	.090	.089	.089	.088

THE FIGURES IN THE BODY OF THE TABLE REPRESENT THE PERCENT OF INCREASE FROM ONE GRADE TO ANOTHER (WITHIN THE SAME MATRIX)

COMPARISON FOR FY78

GRADE	1	2	3	4	5	6	7	8	9	10	11	12	13
2.0	0.000	0.000	.082	.079	.084	.089	.090	.091	.090	.089	.089	.089	.089
3.0	.089	.089	.089	.091	.089	.089	.089	.090	.090	.090	.090	.090	.091
4.0	.089	.089	.089	.090	.090	.090	.090	.089	.090	.091	.092	.092	.092
5.0	.090	.090	.090	.089	.090	.091	.092	.093	.092	.092	.092	.091	.092
6.0	.091	.091	.092	.093	.092	.092	.092	.092	.091	.091	.091	.092	.091
7.0	.092	.092	.092	.092	.091	.091	.092	.092	.092	.093	.093	.093	.093
8.0	.091	.091	.092	.092	.092	.093	.093	.093	.093	.093	.093	.093	.093
9.0	.093	.093	.093	.093	.093	.093	.093	.093	.093	.093	.093	.093	.093
9.5	.047	.046	.046	.047	.046	.047	.046	.046	.047	.047	.047	.047	.047
10.0	.044	.044	.044	.044	.044	.044	.044	.044	.045	.045	.045	.045	.045
10.5	.047	.047	.046	.046	.047	.047	.047	.048	.047	.047	.047	.047	.047
11.0	.044	.044	.044	.044	.045	.045	.045	.045	.045	.044	.045	.045	.045
11.5	.047	.047	.047	.048	.047	.047	.047	.047	.047	.047	.047	.047	.047
12.0	.045	.045	.045	.045	.045	.044	.045	.045	.045	.045	.045	.045	.045
12.5	.047	.047	.047	.047	.047	.047	.047	.047	.047	.047	.047	.047	.047
13.0	.044	.044	.045	.045	.045	.045	.045	.045	.045	.045	.045	.045	.045
13.5	.093	.093	.093	.092	.090	.089	.084	.083	.080	.076	.081	.085	.079
14.0	.094	.094	.092	.090	.088	.087	.085	.083	.082	.080	.078	.077	.076
15.0	.095	.095	.093	.091	.090	.088	.086	.085	.083	.082	.080	.079	.078
16.0	.094	.094	.092	.091	.089	.088	.086	.085	.083	.082	.081	.080	.079
17.0	.095	.095	.093	.091	.089	.088	.086	.085	.083	.082	.081	.080	.079
18.0	.095	.095	.094	.092	.090	.089	.087	.086	.085	.084	.082	.081	.081
19.0	.095	.095	.094	.092	.091	.090	.089	.087	.086	.085	.084	.083	.082
20.0	.095	.095	.094	.092	.091	.090	.089	.088	.086	.085	.084	.083	.082
21.0	.096	.096	.096	.093	.092	.091	.090	.089	.088	.087	.086	.085	.084
22.0	.096	.096	.093	.093	.092	.091	.090	.089	.088	.087	.086	.085	.084
23.0	.095	.096	.094	.093	.093	.092	.091	.090	.089	.087	.087	.086	.085
24.0	.096	.096	.095	.094	.093	.092	.091	.090	.089	.087	.087	.086	.085
25.0	.096	.096	.095	.094	.094	.093	.092	.091	.090	.089	.088	.087	.086

THE FIGURES IN THE BODY OF THE TABLE REPRESENT THE
PERCENT OF INCREASE FROM ONE GRADE TO ANOTHER
(WITHIN THE SAME MATRIX)

COMPARISON FOR 1979

GRADE	1	2	3	4	5	6	7	8	9	10	11	12	13
2.0	0.000	0.000	.079	.075	.073	.078	.082	.083	.084	.083	.082	.083	.082
3.0	.082	.082	.082	.083	.084	.083	.082	.083	.083	.084	.084	.084	.084
4.0	.082	.082	.082	.083	.083	.084	.084	.084	.083	.084	.085	.086	.086
5.0	.084	.084	.084	.084	.083	.084	.085	.086	.087	.086	.087	.087	.086
6.0	.085	.085	.085	.086	.087	.087	.087	.087	.087	.088	.086	.087	.087
7.0	.087	.087	.087	.087	.087	.086	.086	.087	.087	.088	.088	.088	.088
8.0	.086	.086	.086	.087	.087	.088	.088	.088	.089	.089	.089	.089	.089
9.0	.088	.088	.088	.088	.089	.089	.089	.089	.089	.089	.089	.089	.089
9.5	.044	.044	.044	.044	.045	.044	.045	.044	.044	.045	.045	.045	.045
10.0	.042	.042	.043	.043	.043	.043	.043	.043	.043	.043	.043	.043	.043
10.5	.045	.045	.045	.044	.044	.045	.045	.046	.046	.045	.045	.046	.045
11.0	.042	.042	.042	.043	.042	.043	.043	.043	.043	.043	.043	.043	.043
11.5	.045	.045	.045	.046	.046	.045	.045	.045	.045	.045	.045	.045	.045
12.0	.043	.043	.043	.043	.043	.043	.043	.043	.043	.043	.043	.043	.043
12.5	.045	.045	.045	.045	.045	.045	.045	.045	.046	.046	.046	.046	.046
13.0	.043	.043	.043	.043	.043	.043	.043	.043	.043	.044	.044	.044	.044
14.0	.090	.090	.090	.090	.089	.088	.086	.083	.081	.078	.074	.079	.083
15.0	.091	.091	.091	.090	.088	.086	.084	.083	.081	.079	.078	.077	.075
16.0	.092	.092	.092	.091	.089	.087	.086	.084	.083	.081	.080	.079	.077
17.0	.092	.092	.092	.090	.089	.087	.086	.084	.083	.082	.080	.079	.078
18.0	.093	.093	.093	.091	.090	.088	.087	.086	.084	.083	.082	.081	.080
19.0	.093	.093	.093	.092	.091	.089	.088	.087	.086	.085	.084	.083	.082
20.0	.093	.093	.093	.092	.091	.089	.088	.087	.086	.085	.084	.083	.082
21.0	.094	.094	.094	.094	.092	.090	.089	.088	.087	.086	.085	.084	.083
22.0	.094	.094	.094	.092	.092	.091	.090	.089	.088	.087	.086	.085	.084
23.0	.094	.094	.094	.093	.092	.091	.090	.089	.088	.087	.086	.085	.084
24.0	.095	.095	.095	.094	.093	.092	.091	.090	.089	.088	.087	.086	.085
25.0	.095	.095	.095	.094	.093	.092	.092	.091	.090	.089	.088	.087	.086

THE FIGURES IN THE BODY OF THE TABLE REPRESENT THE PERCENT OF INCREASE FROM ONE GRADE TO ANOTHER (WITHIN THE SAME MATRIX)

BIBLIOGRAPHY

- American Chamber of Commerce Researcher's Association. *Cost of Living Indicators, Second Quarter 1978*. Indianapolis, Indiana: American Chamber of Commerce Researcher's Association, Inc., June, 1978.
- Belcher, David W. *Compensation Administration*, Third Edition. Englewood Cliffs, New Jersey: Prentice-Hall Inc., 1974.
- Bureau of Labor Statistics, U.S. Department of Labor. *B.L.S. Handbook of Methods, Bulletin 1910*. Washington, D.C.: U.S. Government Printing Office, 1976.
- Bureau of the Census, U.S. Department of Commerce. *Current Population Reports, Annual Estimates of the Population of States, July 1, 1970 to 1977, Series P-25, Number 727*. Washington, D.C.: U.S. Government Printing Office, July 1978.
- Bureau of the Census, U.S. Department of Commerce. *Statistical Abstract of the United States - 1977*, 98th Annual Edition. Washington, D.C.: U.S. Government Printing Office, 1977.
- Business Week, all issues that contain state personal income figures since the October 19, 1974 issue.
- Dunn, J. D. & Rachel, Frank M. *Wage and Salary Administration: Total Compensation Systems*. New York: McGraw-Hill Book Co., 1971.
- Lewin, David. *The Prevailing Wage Principle and Public Wage Decisions, Public Personnel Management*, November - December, 1974, pp. 473-485.
- Mendenhall, William. *Introduction to Probability & Statistics*, Third Edition. Belmont, California: Wadsworth Publishing Co., Inc., 1971.
- Mosteller, Frederick & Rourke, Robert E. K. *Sturdy Statistics*. Reading, Massachusetts: Addison-Wesley Publishing Co., Inc., 1973.
- Nie, Norman H.; Hull, C. Hadlai; Jenkins, Jean G.; Steinbrenner, Karin; and Bent, Dale H. *Statistical Package for the Social Sciences*. New York: McGraw-Hill Book Co., 1975.
- Personnel Division. *State of Montana 1976 Salary Survey Report*. Helena, Montana: State of Montana Department of Administration, 1977.
- Personnel Division. *Statewide Classification & Pay Plans*. Helena, Montana: State of Montana Department of Administration, 1974.
- Research & Analysis Section, Employment Security Division. *Mining Industry in Montana*. Helena, Montana: State of Montana Department of Labor and Industry, 1977.

BIBLIOGRAPHY (Continued)

- Research & Analysis Section, Employment Security Division. *Montana's Construction Industry*. Helena, Montana: State of Montana Department of Labor and Industry, 1977.
- Research & Analysis Section, Employment Security Division. *Montana's Finance, Insurance & Real Estate Industries*. Helena, Montana: State of Montana Department of Labor & Industry, 1978.
- Research & Analysis Section, Employment Security Division. *Montana's Transportation, Communications, & Public Utility Industries*. Helena, Montana: State of Montana Department of Labor & Industry, 1978.
- Research & Analysis Section, Employment Security Division. *Statewide Industry/Occupation Projections - 1985*. Helena, Montana: State of Montana Department of Labor and Industry, 1977.
- Sibson, Robert E. *Wages and Salaries: A Handbook for Line Managers*, Revised Edition. New York: American Management Association, Inc., 1967.
- Suskin, Harold. *Job Evaluation and Pay Administration in the Public Sector*. Chicago, Illinois: International Personnel Management Association, 1977.
- Warner, Kenneth O. and Donovan, J. J. *Practical Guidelines to Public Pay Administration*, Volume 2. Chicago, Illinois: Public Personnel Association, 1965.
- Wiesberg, Herbert F. and Bowen, Bruce D. *An Introduction to Survey Research and Data Analysis*. San Francisco, California: W. H. Freeman and Co., Inc., 1977.

